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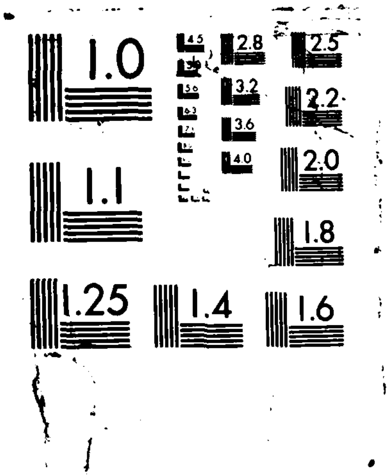
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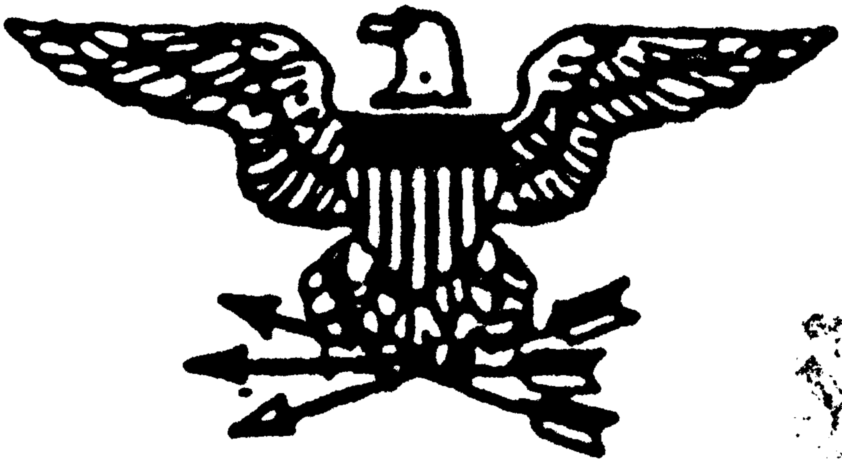

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report contains the proceedings of the second annual National Forum on Human Resources Planning for Private Sector and Defense Leaders. The meeting was sponsored by Assistant Secretary of Defense for Force Management and Personnel, the Honorable Chapman B. Cox, who hosted the general sessions. The Forum brought together 115 high-level representatives from Government, industry and academia to encourage and facilitate meaningful and continuing dialogue among senior Government and private sector leaders concerned with human resources management. The participants were assigned to one of ten panels,

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each discussing a different area of human resources management. The report contains a summary of the Forum and various articles relating to each of the panel topics.

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PROCEEDINGS

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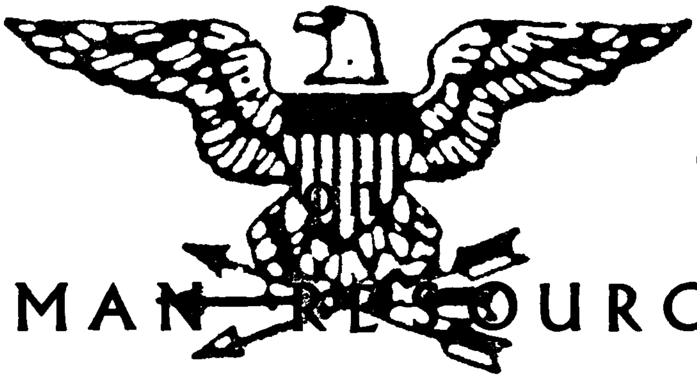

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HUMAN RESOURCES PLANNING

MAY 8 & 9, 1986

HOSTED BY:

THE HONORABLE
CHAPMAN B. COX
ASSISTANT SECRETARY
OF DEFENSE
(FORCE MANAGEMENT AND
PERSONNEL)

LIEUTENANT GENERAL
E.A. CHAVARRIE
DEPUTY ASSISTANT SECRETARY
OF DEFENSE
(MILITARY MANPOWER AND
PERSONNEL PLANNING)

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NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

EXECUTIVE SUMMARY

The second *National Forum on Human Resources Planning for Private Sector and Defense Leaders* was held at the Sheraton Tyson's Corner Hotel in McLean, Virginia on 8 and 9 May 1986. This meeting was sponsored by the Assistant Secretary of Defense for Force Management and Personnel, Honorable Chapman B. Cox, who hosted the general sessions.

The purpose of the National Forum was to bring together top-level representatives of major private companies, the academic community, and the Department of Defense and related agencies to:

- Continue the dialogue and exchange of ideas and experience on human resources management challenges that were begun at the first *National Forum on Human Resource Planning*, held on 9 and 10 May 1985.
- Address the planning implications of these challenges in terms of their impacts on the private and public sectors over the next ten years.
- Determine human resources management areas where a continuing exchange between the private and public sectors will be useful.
- Identify mechanisms for further sharing of ideas and experiences and appropriate vehicles for such future dialogues.

The United States Air Force, executive agency for the National Forum, assigned responsibility for planning, organizing and conducting this event to the Personnel Analysis Center of the Directorate of Personnel Plans (AF/DPXA), Office of the Deputy Chief of Staff for Personnel (DCS/P).

There were 176 registered participants in the National Forum. These included 58 panelists from the private sector and academia and 58 panelists from Defense and the Federal sectors. Other participants included panel recorders, speakers and observers. Private sector companies participating in the two-day National Forum proceedings were:

Aetna Life and Casualty
Air Products and Chemicals, Inc.
American Red Cross
American Telephone and Telegraph
Arthur D. Little, Inc.
Ashland Petroleum Co.
Bank of America
BASF Wyandotte Corp.
Bell Atlantic Corp.
Bell Helicopter Textron
Bristol Meyers Company
Campbell Soup Co.
Carlysle SynTec Systems
The Center for Strategic Decision Research
Cincinnati Milicron, Inc.
Communications Satellite Corp.
The Conference Board
Consad Research Corp.
Control Data Corporation
Corning Glass Works
CRS Sirrine, Inc.
Cummins Engine Co.
Dana Corp.
Delta Research Corp.
Eastman Kodak Co.
Eaton Corp.
E-Systems, Inc.
Ford Motor Co.
Hughes Aircraft Co.
Human Resources Research Organization
Ingersoll-Rand Co.
Kitchens of Sara Lee
Link Flight Simulation Division, Singer Corp.
Logistics Management Institute
Martin Marietta Co.
MCI Telecommunications, Inc.
National Steel Corp.
Navistar International
Northrop Corp.
Pfizer, Inc.
Proctor & Gamble Co.
Shawmut Bank of Boston
Syllogistics, Inc.
System Development Corp.
Texas Instruments, Inc.
Westinghouse Electric Corp.

Noted scholars from the following academic and research institutions participated in the National Forum:

The Bank Street College of Education
The Conference Board
The ForeSight Group
Fresina and Associates
George Washington University
Industrial College of the Armed Forces
Miami University
Naval War College
Organizational Design Consultants, Inc.
Texas A&M University
University of Nebraska
University of Pittsburgh

Participation on the government side was equally impressive. Top leadership participation from the Office of the Secretary of Defense (OSD) and the armed services was comprehensive and balanced.

The National Forum proceedings began with a welcoming address presented by the host, the Honorable Chapman B. Cox, the Assistant Secretary of Defense for Force Management and Personnel. Major addresses were also presented in the following order during National Forum general sessions, lunches and banquet by:

- The Honorable Norman R. Augustine, President and Chief Operating Officer, Martin Marietta Corporation
- Mr. Robert D. McBride, President and Chief Operating Officer, National Steel Corporation
- The Honorable William E. Brock, Secretary of Labor
- General John A. Wickham, Jr., Chief of Staff, United States Army
- The Honorable Donald A. Hicks, Under Secretary of Defense for Research and Engineering

The major work of the National Forum was conducted in ten panels. Each participant was assigned to a panel of his/her interest to consider one of these human resources issues:

PANEL TOPICS

PANEL 1:	**The Austere Budget and Human Resources Management: Contributions and Challenges**
PANEL 2:	**Fostering Innovation: Implications for Policy and Organization**
PANEL 3:	**Human Resources Challenges in the 1990's**
PANEL 4:	**Structuring Organizational Rewards to Motivate Performance**
PANEL 5:	**Developing Today's Careers to Produce Tomorrow's Senior Leaders: Implications of a Changing World**
PANEL 6:	**Training to Increase Productivity and Improve Quality: Costs and Benefits**
PANEL 7:	**Work and the Family: Implications for the Organization**
PANEL 8:	**Changing Organizational Cultures to Build Organizational Effectiveness**
PANEL 9:	**Employee Privacy Versus the Concerns of the Organization: Medical, Drugs, and Dishonesty Screening**
PANEL 10:	**Identifying and Increasing the Contribution of Human Resources to the Bottom Line - Mission Effectiveness**

The prime objectives of each Panel were to:

- Determine primary high-payoff areas in which a continuing exchange between government and industry will serve the national interest.
- Identify mechanisms for future private sector, government sharing.
- Determine the best vehicles for a sustained and productive dialogue.

Each panel was chaired by a private sector executive. Additionally, a noted scholar currently engaged in research on the panel topic served as a resource person for each panel. To assure reasonable coverage of the panel topic and to exploit fully the brief time available, National Forum participants were furnished with an issue paper prepared by the resource person for each panel as a means of stimulating thinking and suggesting potentially fruitful directions in which the dialogue might profitably go.

During the second day of the National Forum there was an exchange of panelists among the panels for a short session. This gave panel members the opportunity to participate briefly in discussion of another issue that interested them and encouraged cross-fertilization of ideas among the panels.

Each panel prepared a report of its proceedings. Drafts of these reports were distributed to participants at adjournment. The final session of the National Forum was a panel discussion among the panel chairmen moderated by Mr. David Weeks, Senior Vice President for Research and Program, The Conference Board. This wrap-up discussion summarized the panel deliberations for the benefit of all participants.

The following pages include the texts or summaries of addresses given at general sessions; issue papers originally presented to each panel; the panel reports; a summary of the closing, moderated session; and a complete directory of participants.

SECTION 1

NATIONAL FORUM ORGANIZATION, OBJECTIVES, AND PARTICIPANTS

In May 1985 the Assistant Secretary of Defense for Manpower, Installations and Logistics sponsored the first *National Forum on Human Resource Planning for Private Sector and Defense Leaders.* The Forum convened on 9 and 10 May 1985 in Baltimore. The purpose of this ground-breaking effort was to bring together top-level representatives of private companies, the academic community, and Defense agencies to:

- Begin a continuing dialogue and exchange of ideas and experience on manpower resource management challenges and their resolution.
- Address the planning implications of these problems and challenges in terms of their implications over the next 10 years.

The first National Forum was well received by both government and private sector attendees, and initiated useful dialogues. Fifty-four senior executives from private sector business and academic institutions attended the two-day proceedings. Attendance also included a comprehensive and balanced mixture of top human resources executives from the Office of the Secretary of Defense and from each of the four armed services. The success of last year's Forum is illustrated in a recent survey of private sector participants. The respondents unanimously stated that they would recommend attendance to their companies and to other individuals, and seventy-four percent reported subsequent personal contacts with others they met at the Forum.

The second National Forum was designed to capitalize on this success and to continue the momentum gained in May 1985. Accordingly, the Assistant Secretary of Defense for Force Management and Personnel (successor, after reorganization, to the Assistant Secretary of Defense for Manpower, Installations and Logistics) sponsored this year's National Forum.

To oversee the extensive research and coordination tasks implicit in this undertaking, the Department of the Air Force was appointed as executive agent. Within the Department, the Personnel Analysis Center of the Directorate of Personnel Plans (AF/DPXA), Office of the Deputy Chief of Staff for Personnel (DCS/P) carried out the tasks of the executive agent. In consonance with these Departmental arrangements, Colonel David T. Fee, USAF, Director, Personnel Analysis Center, was appointed as Forum Coordinator.

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Under Contracts F49642-84-D0038-5010/5013, the executive agent engaged Syllogistics, Inc., 5514 Alma Lane, Suite 400, Springfield, Virginia 22151, to provide technical support services in the planning, organization, and execution of the National Forum. In addition, Syllogistics, Inc., was charged with the responsibility for research for and documentation of the National Forum.

NATIONAL FORUM OBJECTIVE

Many management, manpower, training, and personnel problems are common to both government and industry. Prior to the first National Forum dialogue between the two communities on major issues had been limited. Looking to the next decade, it is clear that a sharing of the best thinking and experience of both sectors could be mutually productive in the national interest. The time is right for this exchange. Indeed, it is critical in an era of fiscal constraint, economic challenge, massive technological change, and evolving new individual and social value patterns.

Government and private sector issues of mutual interest and concern cover a broad array of management initiatives, pay and compensation issues, and questions on the handling of obsolescence, to name only a few. The spectrum of common concerns was reduced to ten major issues. The prime objective of the National Forum was to explore these issues, determine those areas where a continuing exchange will be useful, identify the mechanism for sharing and the vehicle for future dialogue.

Though an ambitious objective for a two day Forum, the potential payoff is worth the investment. To achieve maximum Forum benefits, issue papers were provided for each panel participant prior to the conference. The papers focused, but did not limit discussion on those areas of perceived highest potential payoff. Subject areas were selected and formulated to address the fundamental interest of both the government and private sectors. The assistance of The Conference Board in New York City has been invaluable in identifying and formulating areas and issues of greatest mutual interest to the private, government, and academic sectors, the resolution of which will most directly serve the national interest.

NATIONAL FORUM ORGANIZATION

The National Forum sponsor was the Assistant Secretary of Defense for Force Management and Personnel, Honorable Chapman B. Cox, who served as National Forum Chair.

The major work of the National Forum was done in ten panels that met simultaneously. National Forum participants were initially asked to select and rank order their choice of three panels from the list below. They were then assigned to a panel of their choice to consider one of the following human resources issues:

PANEL TOPICS

PANEL 1: The Austere Budget and Human Resources Management: Contributions and Challenges

PANEL 2: Fostering Innovation: Implications for Policy and Organization

PANEL 3: Human Resources Challenges in the 1990s

PANEL 4: Structuring Organizational Rewards to Motivate Performance

PANEL 5: Developing Today's Careers to Produce Tomorrow's Senior Leaders: Implications of a Changing World

PANEL 6: Training to Increase Productivity and Improve Quality: Costs and Benefits

PANEL 7: Work and the Family: Implications for the Organization

PANEL 8: Changing Organizational Cultures to Build Organizational Effectiveness

PANEL 9: Employee Privacy Versus the Concerns of the Organization: Medical, Drugs, and Dishonesty Screening

PANEL 10: Identifying and Increasing the Contribution of Human Resources to the Bottom Line - Mission Effectiveness

Each panel was composed of about twelve participants, six from the private sector or academia and six from Defense or other government agency. The panel chairmen were executives from the private sector. In addition, each panel was furnished a recorder. These recorders were officers from one of the four armed services of the Department of Defense.

Each panel had a noted scholar, currently engaged in research or consulting on the panel topic, who served as a resource person. These resource persons attended the National Forum and participated in the panel deliberations (with the exception of the Panel 7 resource person who was unable to attend because of a schedule conflict). To assure reasonable coverage of the panel topic and to fully exploit the relatively brief time available, National Forum participants were furnished with an issue paper prepared by the resource person for each panel as a means of stimulating thinking and suggesting potentially fruitful directions that continuing dialogue might profitably take.

The prime objectives of each panel were to:

- Determine primary high-payoff areas in which a continuing exchange between government and industry will serve the national interest.
- Identify mechanisms for future private sector, government sharing.
- Determine the best vehicles for a sustained and productive dialogue.

In addition to the full participants on each panel, there were approximately four observers for each of the panels. These observers were less senior officers and civilian employees of the armed services and the Department of Defense. The observers were invited for their personal enrichment and because most of them have functional job responsibilities related closely to the panel topics being discussed. The observers were advised of the non-attribution policy for the National Forum and asked not to participate in the discussion unless invited by the panel chairman. The short time available to the panel precluded the opportunity for observers to have an active role.

During the second day of the National Forum there was an exchange of panelists among the panels for a short session. This gave panel members the opportunity to participate briefly in discussion of another issue that interested them and allowed cross-fertilization of ideas among the panels. The panel chairmen and recorders remained in their panel rooms while the other panelists moved to another panel room. The panel chairmen then briefed the new arrivals on the previous discussions and moderated an exchange of ideas about the panel topic among the new arrivals. At the end of this one and one-half hour session the panelists returned to their original panel rooms.

Each panel prepared a report of its proceedings. Drafts of these reports were distributed to participants at adjournment. The final session of the National Forum was a panel discussion among the panel chairmen moderated by Mr. David Weeks, Senior Vice President for Research and Program, The Conference Board. This wrap-up discussion summarized the panel deliberations for all participants.

PARTICIPATION IN THE NATIONAL FORUM

Fifty-eight executives from the private sector and academic leaders attended the two-day National Forum proceedings. This number includes six presidents, twenty-two vice presidents, and nineteen directors or managers. Private sector organizations participating in the National Forum proceedings include the following:

Aetna Life and Casualty
Air Products and Chemicals, Inc.
American Red Cross
American Telephone and Telegraph
Arthur D. Little, Inc.
Ashland Petroleum Co.
Bank of America
BASF Wyandotte Corp.
Bell Atlantic Corp.
Bell Helicopter Textron
Bristol Meyers Company
Campbell Soup Co.
Carlysle SynTec Systems
The Center for Strategic Decision Research
Cincinnati Milicron, Inc.
Communications Satellite Corp.
The Conference Board
Consad Research Corp.
Control Data Corporation
Corning Glass Works
CRS Sirrine, Inc.
Cummins Engine Co.
Dana Corp.
Delta Research Corp.
Eastman Kodak Co.
Eaton Corp.
E-Systems, Inc.
Ford Motor Co.
Hughes Aircraft Co.
Human Resources Research Organization
Ingersoll-Rand Co.
Kitchens of Sara Lee
Link Flight Simulation Division, Singer Corp.
Logistics Management Institute
Martin Marietta Co.
MCI Telecommunications, Inc.
National Steel Corp.
Navistar International
Northrop Corp.
Pfizer, Inc.
Proctor & Gamble Co.
Shawmut Bank of Boston
Syllogistics, Inc.
System Development Corp.
Texas Instruments, Inc.
Westinghouse Electric Corp.

Noted scholars from the following academic and research institutions participated in the National Forum:

The Bank Street College of Education
The Conference Board
The ForeSight Group
Fresina and Associates
George Washington University
Industrial College of the Armed Forces
Miami University
Naval War College
Organizational Design Consultants, Inc.
Texas A&M University
University of Nebraska
University of Pittsburgh

Participation on the government side was equally impressive. Office of the Secretary of Defense (OSD) and armed service human resources top leadership participation was comprehensive and balanced. To illustrate:

- There were sixteen participants from the Office of the Secretary of Defense, thirteen from the Army, eleven each from the Navy and Air Force, and six from the Marine Corps.
- The Deputy Assistant to the President for Drug Policy and the key personnel policy official of the Office of Management and Budget participated.
- The civilian/military mix included:
    - Two Assistant Secretaries for Manpower and Personnel.
    - Five civilian and two military Deputy Assistant Secretaries, plus eleven Secretariat-level civilian Directors and a civilian Department Chair from the Naval War College.
    - Three 3-Stars, ten 2-Stars, ten 1-Stars, and sixteen other senior military personnel.

Registration of Forum participants commenced at the hotel at 3:00 PM on the afternoon of 7 May 1986. A complete National Forum agenda is presented in Section 2.

SECTION 2

NATIONAL FORUM PRESENTATIONS AND AGENDA

Presentations were made to the assembled National Forum participants by internationally known government and private sector authorities. These addresses highlighted key National Forum issues and were made at the times indicated in the National Forum Agenda reproduced below. They are presented verbatim in the immediately succeeding sub-sections of this report. (Addresses by the Honorable William E. Brock and the Honorable Norman R. Augustine were delivered extemporaneously. A summary of each of these addresses is provided in lieu of the verbatim remarks.)

NATIONAL FORUM AGENDA

WEDNESDAY MAY 7, 1986

3:00	Registration Opens
7:00	Reception for Panel Chairmen
7:30	General Reception - *Junior Ballroom*

THURSDAY MAY 8, 1986

8:30	Welcome - The Honorable Chapman B. Cox, Assistant Secretary of Defense (Force Management and Personnel) - *Lord Fairfax Grand Ballroom*
8:50	Address - The Honorable Norman R. Augustine, President, Martin Marietta Corp.
9:30	Instruction to Panel Members - Lt Gen E. A. Chavarrie, Deputy Assistant Secretary of Defense (Military Manpower and Personnel Policy)
9:40	Refreshment Break
10:00 - 11:45	Panel Meetings

12:00	Luncheon and Address by Mr. Robert D. McBride, President, National Steel Corp. - *Lord Fairfax Grand Ballroom B*
1:30	Return to Panels
3:00	Address - The Honorable William E. Brock, Secretary of Labor - *Lord Fairfax Grand Ballroom B*
3:45 - 5:30	Panel Meetings
6:30	Reception - *Lobby*
7:00	Banquet - *Lord Fairfax Grand Ballroom B*
8:00	Entertainment - US Army Chorus
8:30	Banquet Address - General John A. Wickham, Jr., Chief of Staff, United States Army

FRIDAY MAY 9, 1986

8:30	Panelists Visit Alternate Panels to Share Discussion Points
10:00	Break
10:15 - 11:30	Panel Meetings
12:00	Luncheon and Address by the Honorable Donald A. Hicks, Under Secretary of Defense, Research and Engineering - *Lord Fairfax Grand Ballroom B*
1:15	Moderated Discussion of Panel Findings by David A. Weeks, Senior Vice President, Program and Research, The Conference Board
2:45	Concluding Remarks - The Honorable Chapman B. Cox - *Lord Fairfax Grand Ballroom B*
3:00	Adjournment

The remaining pages of this Section reproduce verbatim the presentations made by Assistant Secretary Cox; by the President and Chief Operating Officer of National Steel Corporation, Mr. Robert D. McBride; by General John A. Wickam, Jr., Chief of Staff, United States Army; and by Under Secretary of Defense for Research and Engineering, Donald A. Hicks. This section also includes summaries of remarks made by the Honorable Norman R. Augustine and the Honorable William E. Brock as well as a summary of the concluding panel discussion, moderated by Mr. David A. Weeks.

WELCOMING REMARKS BY THE HONORABLE CHAPMAN B. COX, ASSISTANT SECRETARY OF DEFENSE FOR FORCE MANAGEMENT AND PERSONNEL TO THE SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

- As I welcome you this morning, I feel an almost tangible spirit of cooperation and patriotism.
  - It is a product of the personal patriotic commitment and generosity displayed by each of our private sector colleagues who have come to this Forum at their own expense and who are giving freely of their time in the national interest.
- Each of us in the Department of Defense -- each of those who serves with me in the Army, Navy, Marines and Air Force -- salutes and thanks you for the valuable and important contribution you are making.
- Last year we laid the foundations of this National Forum -- dedicated to building a continuing dialogue among our nation's human resources management leaders.
  - It was a huge success, as evidenced by this prestigious audience.
  - Clearly, we have in this room this morning a national treasure.

- Our callings are diverse -- in the private sector, you span both academia and most major manufacturing, marketing, and service industries -- and in the public sector you cover every facet of human resource management in each of the armed services, as well as the national manpower management responsibilities executed by the Department of Labor, the Office of Management and Budget, and the Executive Office of the President.

- Though each of us here may spend our working days in diverse organizations producing equally diverse products and services:

  -- People are the essence of our productive capability.

  -- Our people resources come from the same national manpower pool.

  -- Therefore, our people share essentially similar perceptions of the world of work, rewards, incentives, and personal and organizational ethical values.

  -- By the same token, our people share in equal measure the admirable and not-so-admirable characteristics of our national society, including a long history of broad accomplishment . . . a recent inheritance born of several decades of rapid social change . . . the propensity of some to abuse many of the material advantages that our free and productive society has made available to them . . . and, finally, an academic and economic environment almost daily influenced by quantum leaps in man's store of knowledge, and by increasingly rapid technological change.

- In sum, then, our defense-committed military institution, while distinct in significant ways from our great business, industrial, and educational institutions, nevertheless shares most of the human resource characteristics, problems, and challenges facing our private sector colleagues. Introspection alone has never sufficed in the past to give us the tools we need to meet successfully those challenges and overcome those problems. Accordingly, we have borrowed proven private sector practices over the years to structure and manage more effectively and productively our federal civilian and military manpower resources. On occasion, military manpower management practice has even set the pace for excellence and quality in the government sector at both the national and state levels. Computer applications in the field of human resources management constitute an example . . . industrial engineering applications to the complex task of annually sizing an international force of approximately three million civilian and military souls is another example.

- However, the rapidly changing environment that surrounds us all as resource managers demands equally rapid adaptation to change . . . and change has become the "sine qua non" in almost every facet of our management task.

  - High technology demands upon human physical and mental capacities may be the most readily understood example.

-- I am convinced that your panel sessions will underscore the demand for new and innovative approaches:

--- To accommodate our concepts of training and retraining to the evolving demands of a high-tech and rapidly-obsolescence society and

--- To accommodate our concepts of compensation, reward, and incentive in the workplace to the subtly changing sets of personal and organizational values evolving in our society.

-- Finally, we must accommodate a volatile economy buffeted by rapid deterioration of some segments of our manufacturing superstructure, equally rapid expansion of other segments, a rush of expansion in the service industries, and a vacillating international competitive posture.

-- We face:

--- A slowing of annual productivity increases within our national workforce and an acceleration of productivity increases among our primary international competitors,

--- A revolution in the male-female mix of our national workforce characterized by a rapid influx of women,

--- A strong dollar currently at the level it held two decades ago, and

--- An economy annually more sensitive to developments abroad in a world economy growing progressively more interdependent.

- Let me recap briefly -- two main points:

-- First, progressive change has steadily eroded the sharp distinctions heretofore drawn between the so-called "Professional Military Model" and what has been called the "Civilian/Vocational Model." We all effectively face the same challenges -- the economic constraints we must address and the technological and societal "revolutions" we are going through on this planet today and in space tomorrow.

-- Second, to achieve our national objectives and to provide fully *for the material, societal, and defense needs of our great* people, we must approach the people-management tasks of the coming decade in a spirit of cooperation and willingness to accommodate change through intelligent innovation.

- In conclusion, we believe we can best achieve our objectives through a close partnership and regular interchange with our private-sector counterparts in academia and industry. It is our hope that, today and hereafter, we will work together in building constructive, realistic solutions to cope with our collective problems; that through discussion, research, analysis and action, we can combine and focus our collective knowledge to benefit our respective institutions and the nation they serve.

- It is the business of this Forum to identify the common interests of the military, business, and academic communities and to sketch the direction of our future crosstalk and crosswork.
- To help stimulate our thinking in this undertaking we have asked a number of exciting speakers to join us during the Forum. It is my pleasure to introduce the first, the Honorable Norman Augustine.

ADDRESS BY

THE HONORABLE NORMAN R. AUGUSTINE
PRESIDENT AND CHIEF OPERATING OFFICER
MARTIN MARIETTA CORPORATION

TO THE

SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

The following is a summary of The Honorable Norman R. Augustine's address to the Second National Forum on Human Resources Planning given on May 8, 1986. In addition to what is summarized here, Mr. Augustine included many anecdotes from his book, Augustine's Laws, Viking Penguin Inc., 1986.

Government and industry are not communicating. This statement is true in a number of areas including human resources management. We seldom have the time to deal with the fundamental issues.

One of these issues is the importance of people. They are our most important asset. I truly believe in the importance of people; it is seen time and time again. You have to get the right person on the job to achieve success. We must begin by selecting the right ones. They must then be trained, and training must be a continual process. Motivation is another key. Those organizations that select, train and motivate properly will receive huge payoffs for their efforts.

While examining the technical archives I began to notice the appearance of the same names over and over again. I attempted to plot the contributions in terms of percent of papers versus percent of contributors. This turned out to be an impossible task since, in reality, some of the contributors had zero or negative outputs. This tended to set the rest of us back. While watching Monday Night Football one Thursday night (ought to be some kind of law in that) I decided to look at rushing touchdowns in the NFL. I also examined the performance of the fighter pilots in the United Kingdom's Royal Air Force, patents awarded, and arrests made by the Washington, D.C. police. It became evident that 10 percent of the people produce *over* 1/3 of the output. If you get rid of *half* of the people, you would lose less than 20 percent of the output. What happens as you add more people to accelerate the task? It merely serves to reduce the *average* performance!

When I was Under Secretary of the Army, I found that motivation was a powerful tool in getting the best from people. It takes more than money to motivate people, although money is not unimportant. People tend to be motivated when they are satisfied with their job and their job is challenging - one that gives them the opportunity to grow in their skills. Performance cannot be merely bought. *For example, in the NFL, the highest paid team finished* dead last. The lowest paid team won their division. The three highest paid teams finished last, next to last, and eighth to last. The upper salary quartile produced no division winners. Two of the eight poorest paid teams won their divisions.

I have found in business, sports, battle . . . life, that small differences are often decisive. We must motivate people to give that last bit of effort. The Fortune 501 company had sales that were only 1/10 of 1 percent below that of the Fortune 500 company. In the finals of the 100 meter dash in the 1984 Olympics, the difference between the silver medal and dead last was 0.16 second! Samuel Tilden would have been President of the United States had he not lacked one undisputed vote in the electoral college. A missing dash above a symbol in a little-used software routine was the reason for the failure of the Mariner mission to Venus. Attention to detail stems from how well we select, train, and motivate our people.

There is a vast difference between government and industry in giving their people the latitude they require to manage effectively. The manager in industry has the authority to hire, fire, and reward his people. Industry can hire tomorrow. When I was Under Secretary it took five months to hire a well-qualified person. Good people will simply not wait that long for a job; they will go elsewhere.

In regards to equivalent pay, have you ever wondered what industry would have to pay to receive the service that a military member gives? The military member undergoes frequent moves; some are to undesirable locations and require family separation. He/she is on call 24 hours a day, and there is the possibility of loss of life.

In the matter of training, the government has the edge over industry, at least in the training given to those in the military. Training for government civilians is poor.

Management in government is in large part adversarial due to its oversight by Congress, the administration, and various other departments.

Where are we headed in regards to human resources? If left unattended, I believe we are headed for a compression in pay. There is pressure from the bottom to increase pay and pressure from the top (Gramm-Rudman, etc.) to hold down pay. This will make it more difficult for government to recruit.

We are headed for a shorter work week. Possibly a four day week. In 1929 the average worker worked 2342 hours; in 1985, that had dropped to 2140 hours. If this trend continues, in 120 years there will be no work!

There will be a change in the demographics of the work force. With an increase in the number of working couples, there will be less latitude in the ability of an employee to move to a new location. The work force will have a greater number of women and minorities. More people will be employed in service jobs. Many jobs will move offshore where labor costs are significantly lower.

In summary, the bottom line for both government and industry is people. Once you have recruited and trained them, you must make every reasonable effort to keep them. This is particularly true for government.

Mr. Augustine concluded his remarks with the following anecdote: "Just imagine -- If Martin had kept Bill Boeing, Jim McDonnel and Don Douglas, I could have flown here in a Martin-Boeing-McDonnel-Douglas 747."

ADDRESS BY
MR. ROBERT D. MCBRIDE,
PRESIDENT AND CHIEF OPERATING OFFICER,
NATIONAL STEEL CORPORATION
TO THE
SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

LOOKING OUT FOR THE OTHER GUY

Good afternoon. It's good to be with you.

Fifty years ago, in his second inaugural address, Franklin Delano Roosevelt made a statement about looking out for the other guy.

"We have always known," said Roosevelt, "That heedless self-interest was bad morals. We know now that it is bad economics, too."

FDR's pragmatic analysis of self-interest was directed at a country beginning to recover from a great depression. But it applies equally well to labor relations today. If you don't look out for the other guy's interests. . . it's going to cost you.

Eleven days ago, the membership of the United Steelworkers ratified a proposed labor agreement between National Steel and the USWA.

The Washington Post called the new pact a "precedent-breaking labor agreement." Others in the media have called the settlement "unique and innovative" . . . some refer to it as "a Japanese-style contract."

At National Steel, we believe our new contract is a trend-setter . . . an agreement that will set the pace in the industry for years to come. But this innovative contract wasn't the result of our great insight or bargaining brilliance. It evolved because both sides went to the bargaining table with a simple philosophy: "Look out for the other guy's interests, too."

Before I get into the particulars of the new contract, I'd like to set the stage by giving you a brief history of collective bargaining in the steel industry. Historically, that relationship has been nothing to brag about . . . and that's putting it mildly. From the industry's beginning in the nineteenth century, frequent confrontations and picket line violence created hostilities whose remnants, to some extent, are still with us today.

In 1937, the newly formed United Steelworkers' Union pushed aside a so-called company union and negotiated its first contract with the industry giant, United States Steel Corporation. During the next few years, the union signed labor contracts with most of the other steel producers. The labor climate continued to be stormy, but a bargaining pattern was being established.

After World War II, when wage and price controls were lifted, the industry's relationship with the union deteriorated significantly. Beginning in 1946, and every two or three years thereafter . . . when the labor contract came up for renewal . . . there was a nationwide steel strike.

By 1956, leaders on both sides of the table agreed that something had to be done to improve the bargaining process. The answer, which seemed appropriate for the time, was coordinated bargaining. That's an arrangement in which a committee of industry representatives negotiates a single contract that applies to all participating firms.

Some of the companies had doubts about coordinated bargaining. But at that time, a number of economic factors were working to overcome their resistance.

The big factor was the growing threat of imports. Every time the industry was shut down by a strike, foreign steel came in to fill the gap. And after each strike, the imports held onto a little more of the market. The companies felt that if coordinated bargaining could bring an end to the strikes, it was worth a try.

Another thing in favor of the coordinated bargaining approach was the fact that the American economy was booming, and the business prospects for steel were very bright. It was a big incentive for the producers to avoid costly and damaging strikes.

So coordinated bargaining took hold, and there hasn't been an industry-wide steel strike since 1959. But that doesn't prove the process was successful.

By the early 70's, it was evident that the companies were giving away too much in wages and fringe benefits just to avoid strikes. Labor costs in the domestic steel industry were well above those of foreign countries, which made it harder to compete against the threat of imports.

Besides that, it turned out that just the threat of a steel strike every three years caused buyers to begin stockpiling early in every contract year. Since the industry was usually running at close to capacity anyway, the customers often had to buy foreign steel to build their stockpiles.

The upshot was that imports continued to come in, with or without strikes, or even the threat of strikes. The belief that coordinated bargaining would help keep out the imports turned out to be a mirage.

By 1973, another contract year, imports had captured more than twelve percent of the domestic market. Alarm bells were ringing both in the union halls and the executive suites. So, the labor negotiators came up with a new gimmick. It was called the experimental negotiating agreement . . . ENA . . . in which the union agreed not to strike when the new contract expired three years hence. This, of course, was designed to end the pre-strike stockpiling. In return, the companies agreed to cost-of-living pay increases and a no-strike bonus, among other things.

But again, the best intended plans went awry. You'll remember that 1973 was also the year of the Arab oil embargo and the beginning of skyrocketing inflation. The new cost-of-living clause had a devastating effect on the basic industry's hourly employment cost. Total employment costs, which include fringe benefits, went from an average of $7.68 per hour in 1973 to $22.21 an hour in 1983. And, as these costs went up, American steel became less and less competitive with the imports.

Coordinated bargaining came unglued two years ago . . . it was finally abandoned by all of the major steel producers in 1985. In retrospect, it's hard to see how coordinated bargaining helped the industry as a whole. Yes, there were twenty-seven years of labor peace, but that stability was bought at a very high price.

So much for coordinated bargaining. As I've already indicated, some of its assumed benefits were wiped out by unforeseen changes in the domestic steel market. For the most part, they were unrelated to the collective bargaining process. There were economic trends which, in the late 70's, started the domestic steel industry on a downward spiral that's still going on.

So that you can understand the environment for the 1986 bargaining process, I'll briefly review the major economic elements that added to the problem. Imports were certainly a major factor, as I've already said. They increased steadily during the 70's and early 80's, and in the last two years took over 25 percent of the domestic market. In some months they exceeded 30 percent. There has been some improvement so far in 1986, but the levels of imports have still not approached the government's voluntary restraint agreement goal of 18 to 20 percent.

The steel industry has also been hurt by the growing importation of finished products containing steel . . . what our customers call "downstream dumping." Products like automobiles, appliances and heavy machinery.

Another important economic element is that the market for steel in this country, while still very big, has been shrinking steadily. Domestic steel consumption has declined by almost 25 million annual tons since its peak in 1973. Declining demand and rising import penetration have created vicious price competition in the domestic steel marketplace.

Falling demand and falling prices are a disastrous combination for any business, and they have been all of that for the American steel industry. Total industry losses in the past four years are approaching seven billion dollars. The end result has been a massive shakeout and restructuring of the industry.

Employment in the industry has shrunk by more than 50 percent. There have been plant closings, mergers, joint ventures and diversifications as the major producers try to cut their losses and strengthen their financial base.

Everyone now agrees that the American steel industry will never be what it was in the prosperous years of the 60's. Sooner or later, and probably during the next decade, the shakeout will run its course. The basic industry will consist of a smaller number of highly efficient companies capable of competing effectively in a global marketplace.

About six years ago, we recognized what was happening in the steel industry . . . and the probable end result. We made up our minds that National Steel would be one of the survivors of the shakeout . . . and began planning for it.

In 1981, we rationalized our business, cutting our production capacity in half. That was a painful decision . . . but a necessary one. In September of 1984, Nippon Kokan, Japan's second largest steel company, bought half of National Steel. That joint venture helped us change the way we viewed ourselves.

First, we revised our mission statement. Our new goal was to become a world-class supplier of quality steel products and services. Not one of the best domestic producers, but a world-class producer.

We also launched the largest capital improvement program in our history . . . a program designed to help us prepare for the 1990's. And, at the same time, we began a major program to improve employee productivity and our relationship with our work force. That program is what I want to focus on for the rest of my time with you today.

One of our first moves in the human relations area was to reach a decision to break away from the steel industry's coordinated bargaining group. We had long been dissatisfied with United States Steel's dominance of the bargaining process. We felt contracts negotiated under coordinated bargaining often tended to favor what was good for U.S. Steel. But for many years, it seemed we had no choice but to stay in the group. It was either that or try to bargain separately, and be whip sawed by the union into accepting the industry contract . . . or something worse.

But that rationale just didn't hold water anymore. When coordinated bargaining began in 1959, the participating companies had about 95 percent of the domestic steel market. By this year, they had roughly 60 percent.

A lot of steel is now being produced by non-union labor or by companies that have lower cost labor contracts. Some of those companies filed for Chapter 11 and reorganized with lower labor contracts. The old bargaining pattern is no longer able to maintain uniform labor costs across the industry. The low wage producers have a cost advantage of as much as six dollars an hour. They are eating our lunch, just like the imports.

Furthermore, because of such things as mergers, joint ventures and diversifications, the companies in the bargaining group have much less in common with each other than they did when the arrangement was set up. At National Steel, we have developed a survival plan that is uniquely our own. And we feel we have a better chance for a labor contract tailored to our corporate goals and the individual needs of our plants and employees by going it alone.

So we broke away. When we did, in July 1984, we were the first of the major steel companies to take that step. Meantime, we had been implementing a plan to improve our relationship with all of our employees. The plan was based on the belief that our key resource is our people. Our strategy was to encourage our people to get deeply involved in day-to-day problem solving. Today, we have 156 labor-management participation teams at work in our plants under a joint program with the union. In all, more than 90 percent of our employees are involved in some type of participative activity. We recognized that people would do a better job, and feel better about it, if they can have a say in how things are done. So we gave them a say . . . a strong one.

In December of 1984, about six months after we broke away from the coordinated bargaining committee, we took a major step to improve our relationship with the union by establishing a joint problem solving committee of company and union officials. Committees were formed to deal with corporate-level problems; other committees were formed at each of our divisions to handle plant-level problems. The committees deal with issues that are not normally the subject of bargaining, such as safety and health, job security, and productivity improvements.

The meetings began in January of 1985 and continued, on a regular basis, throughout the year. There was no bargaining at these meetings. The intent was to resolve issues of common concern in a non-adversarial way; one that recognizes the legitimate concerns of the company, its workers and the union.

These committees have been very active since they were established nearly a year-and-a-half ago. For example, they drafted a policy on the company's use of outside contractors. This has long been a bone of contention between labor and management in the steel industry. This joint problem solving effort laid the groundwork for the provisions on contracting out that were later incorporated into our new labor agreement.

At our Midwest plant in Portage, Indiana, the local working committee developed a pilot program on employment security. While it was not implemented, it became the basis for a precedent-setting agreement on this issue in the new labor contract.

Even more important, the problem solving committees were a big help in developing an atmosphere of trust and mutual understanding when company and union officials sat down at the bargaining table. It is no overstatement to say that we couldn't have reached the agreement that we did without them.

Now, let's look at what was accomplished in this year's bargaining agreement. As I said earlier, we feel that it's innovative . . . creative . . . perhaps even revolutionary. And we think it will establish a pattern for bargaining in the steel industry for years to come.

Before we entered actual negotiations, we established an overall strategy. It had two main points.

First, both sides must win something if we are going to have a viable contract. Second, if we are to become a world-class steel company by 1990, we need long-term productivity improvements, not a quick fix via short-lived wage and benefit concessions.

The union, on the other hand, was interested in employment security. We were anxious to search for a way to give both sides what they needed . . . and that's what we set out to do.

We explained both to the union and to our salaried employees the need for significant reductions in the work force over the next three-to-five years. We suggested a figure of 25 to 30 percent. That's about 3,500 people, and I want to emphasize that it includes both hourly and salaried employees.

The union was not excited by the prospect of reductions, but they also realized that reductions are essential if National Steel is going to attain the productivity levels that will make the company competitive on a worldwide basis.

Both sides agreed that our employees should not be hurt by work force reductions. We agreed that the reductions should be achieved through attrition -- retirements and people leaving the company of their own volition. Historically, our rate of attrition has been in the 6-7 percent range, so we felt that four years of normal attrition would bring our goal within reach.

Now, under the old contract, it would not have been possible for us to reduce the work force in this way. The rigidity of the work rules in the old contract prevented us from using our work force efficiently, and we simply could not consider running our plants without replacing the people who left.

But our new contract wipes out many of the old jurisdictional job barriers. We will be able to train our people in multiple skills, so they can handle more than one job and be assigned accordingly.

Next, we worked out an employment security package. Through the thirty-nine months of our new contract we have guaranteed the union there will be no layoffs. None.

There's another advantage to both sides in employment security. Employees can now feel free to propose ways to save time, cut out waste, even eliminate entire jobs, without the fear that it will be their job they're eliminating. They know they'll have a job. It's guaranteed by the contract.

This is a classic example of an agreement in which both sides win. The company gets a program to achieve long-term productivity gains through attrition and work rule changes; the union gets a long-sought after guarantee of employment security.

Thus far, I've described a contract that guarantees employment security, provides permanent productivity improvements, changes long-established work rules, and eliminates as much as 25 to 30 percent of our work force. That represents major, almost revolutionary changes, at least for an American steel company. But there's more.

Another trend setting part of the contract came in the economic area. Yes, there were some modest wage and benefit concessions . . . a total of 99 cents an hour in employee concessions and an additional 52 cents an hour in other cost savings. Those were small by comparison with LTV Steel's settlement of $3.15 an hour in concessions alone. But that wasn't a major objective.

The big news in the economic area is that employees have the opportunity to share in profits and productivity gains. The employees can now earn between 50 cents an hour and $1.75 per hour for each hour they work. The amount is based upon the level of profit the company achieves. When we win, everyone wins. If we lose, we all lose.

The employees also have the opportunity to earn an additional bonus based on product quality and manpower costs. In other words, we're putting our money where our mission is -- we'll pay our employees to make better products at lower cost.

We've built even more flexibility into the contract. Experimental programs, for example. We're looking at the possibility of providing assured rates of pay for hourly workers, who, in turn, would take on additional duties. Sounds a lot like salaried employees, doesn't it?

We're also going to experiment with skill-based pay programs that will pay workers based upon their knowledge, skills, and expertise.

And finally, because our salaried force reduction will result in fewer supervisory people in the plants, we will be expecting more self-direction by the employees. This principle would not have been possible under the old contract.

We believe this contract has unlimited potential. But despite all the innovative ideas and good intentions, the bottom line comes down to implementation. Without proper implementation, all we have is a worthless piece of paper.

That's why we built a cooperative partnership agreement into the contract. The agreement guarantees regular meetings from top management levels through in-plant work groups. Our goal: keep the lines of communication open -- up, down and sideways -- and solve differences early before they become major problems . . . so we can implement the spirit of the contract.

Without question, our agreement breaks new ground in the steel industry . . . it may become a model for other companies, even other industries.

We've asked the employees to take on added responsibilities, accept more flexible work rules . . . and accept manpower reductions. In essence, we've asked them to make management decisions that will help National Steel survive in the short-term and prosper in the long-run. We've asked them to make a commitment to raise product quality and lower overall costs.

In return, we've made commitments to the union. We've provided employment security that guarantees there will be no layoffs. We've settled for modest wage and benefit concessions in return for more permanent, longer-range savings. We've provided profit sharing and productivity/gain sharing opportunities that give our employees the potential to earn substantially more than others in the industry. We've even added a 401-K savings plan for our hourly employees.

More important than the details of the contract is the spirit in which it was fashioned. It was done as a cooperative partnership, a partnership that emerged from a year-and-a-half of joint problem solving meetings.

All of this doesn't mean we're having a love fest at National Steel. Far from it. What we designed is a pragmatic contract, one that we believe takes into account the needs and interests of National Steel and the United Steelworkers. Both sides went to the bargaining table with that in mind. Otherwise, this contract could never have been written.

The time has come when managements in our mature industries must recognize that it's to their advantage to provide for the long-term welfare of their employees, and give them a stake in the business. The unions must realize that they share with management a responsibility for the long-term viability of the companies whose workers they represent.

That's what National Steel's new labor contract is all about. We believe it's the wave of the future in labor relations.

The adversarial relationships of the past no longer work . . . if they ever did. In the steel industry, the heedless self-interest that FDR referred to helped bring about the industry's decline. It brought hardship for thousands of workers who lost their jobs. Everyone ended up a loser. It was, indeed, bad economics.

And it will continue to be that way for companies and unions that fail to recognize the good that can come from forthright concern for the needs of the other guy. They will surely be among the losers in the race for survival; as our industries continue to mature.

At National Steel, we've seen the light. We know what it takes to forge a mutually supportive relationship with our unions and our employees. We will all be winners in the years ahead.

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ADDRESS BY

THE HONORABLE WILLIAM E. BROCK
SECRETARY OF LABOR

TO THE

SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

The following is a summary of the Honorable William E. Brock's address to the Second National Forum on Human Resources Planning given on May 8, 1986. In addition to this summary, Mr. Brock entertained questions from Forum participants.

Today's workforce can be characterized by its changing demographics and environment. A large increase of working women is certainly the most obvious of the demographic changes. This has brought about new initiatives by the private sector such as industry-supported child care centers, flex time, family counseling, and liberal maternity leaves of absence. Another demographic change involves the declining numbers of young people entering the workforce. This means that the average age of the workforce will increase, and both industry and government must adjust to this change.

One of the biggest factors impacting the workforce has been problems with our American education system. Approximately 700,000 young people enter the workforce each year without completing high school. Some high school graduates are illiterate. There are growing problems with multiple languages. There are obvious problems with the education system, and it is important to support the President's push to improve public education. Another factor is that the work environment has become much more technical, and the education system has failed to keep up with that trend. This has been partly due to lack of coordination between the labor and education communities. One of our new initiatives is a closer cooperation between the Departments to help education prepare young people for the workplace.

Secretary Brock concluded his prepared comments by stating that much closer coordination between the private sector and the Government would be required to meet the demands of the changing workplace of the future. He noted that progress has been made to improve this coordination.

Secretary Brock then entertained questions from the audience.

ADDRESS BY
GENERAL JOHN A. WICKHAM, JR.
CHIEF OF STAFF, UNITED STATES ARMY
TO THE
SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

A VISION AND VALUES

It's a privilege to be here this evening. The Forum's work is extremely important, relevant, and timely. Today, we face some tough challenges that involve the stewardship of human resources, challenges that have long-term implications. The dialogue, experience, and ideas that are shared here will help all of us do a better job and serve the interests of our great nation.

As I look at the discussion topics for the Forum's working panels and the emphasis on "productivity," I'm reminded of a story:

> A strongman in a carnival sideshow was exhibiting his prowess and, as a final trick, he squeezed the juice from a lemon with his bare hands and then offered ten dollars to anyone in the audience who could squeeze another drop out of it. After a pause, a small, skinny, bespectacled man came forward and tried it. After much groaning and straining, he managed to squeeze one large drop of juice from the lemon, to the delight of the audience.
>
> As the strongman begrudgingly handed over the ten dollars, he asked the small man, "What's the secret of your strength? How did you do it?"

"Oh, it was nothing, really," the man replied. "I was the treasurer of my church for thirty years."

As we all work together to "squeeze the most we can from the lemon" (and improve productivity), let me express my appreciation to our participants from the private sector. Your dedication and generosity are vital to the success of this Forum. Thank you for giving us your valuable time and attention.

Tonight, I want to tell you "the Army story" and highlight the points of interest that relate to the work of this Forum. People are "stage center" in our Armed Forces, and especially in the Army. Great leverage can be gained from improving the productivity of human resources. The Army story provides you a case study to work on because people and productivity are key factors to our success.

The Army helps provide the nation a capability to deter wars before they start, to control them if they do start, and to terminate them on terms favorable to our interests. Today's Army is the best I've seen in 36 years of service -- and, it's also the smallest. We have 28 divisions in the total force, 10 of which are in the National Guard. Yet, the threat to our Nation's security is large and continues to grow. The Soviet military build-up, the rise of state-sponsored terrorism, and the proliferation of regional conflicts present serious challenges to peace and stability throughout the world.

Defense spending since 1981 has accomplished much: better people and morale, strategic modernization, enhanced readiness, and improved conventional forces. But, we're still behind the Soviets in key areas. Budget growth is essential to preserve the benefits of our increased strength.

The Secretary of the Army and I share a common vision of how the total Army -- Active, National Guard, Reserve, and civilian components -- should prepare for land combat, both for today and in the future. The Book of Proverbs says, "Where there is no vision, the people perish." The authors of A Passion for Excellence say that visions are important, and that they must be stated clearly, communicated fervently, and cared about passionately.

The elements of the Army's vision are:

- o First, to provide quality soldiers and strong families in the active and reserve components.
- o Second, to field a flexible, modernized force that can fight anywhere, anytime, and under any circumstances.
- o Third, to develop high technology and productivity enhancements that increase the capability of our small Army.
- o Fourth, to fight and sustain as part of joint forces (with our sister services) and combined forces (with our allies and friends), including the ability to deploy tactically and strategically anywhere in the world.
- o Fifth, and last, to exercise strong stewardship over the human and materiel resources that are entrusted to us by our citizenry.

This vision keeps in view the capacities of our potential adversaries as well as the promise of the technological and industrial advantages enjoyed by the U.S. and its allies. It requires leadership and resolve. And it requires that we innovate and work smarter. In short, if our enemies are bigger, then we must be better!

Let me discuss each in turn.

PEOPLE AND FAMILIES

A quality Army starts with quality soldiers supported by strong families. I'm happy to say that we've made great progress recruiting and retaining both soldiers and families. Active Army accessions of high school diploma graduates -- a key measure of our quality -- have increased significantly since 1980 (up from 54% to 91%). National Guard and Reserve accessions are also up. Category IV accessions, the lowest mental test category, remain at low levels; in fact, they're at 9% which are historical lows for the active Army.

Retention trends are also healthy. In FY 1985, we achieved 101 percent of our reenlistment objective, and, in FY 1986, we reenlisted 109 percent of our objective. These objectives meet our minimum manpower needs for the year. This kind of success is dependent on the proper incentives -- such as assignment opportunities, educational opportunities (G.I. Bill), and bonuses. Success is also dependent on organizational climate and quality of life factors.

At the same time that quality indicators have increased in the active Army, rates of indiscipline have decreased. Drug offenses, AWOL, crimes against property, and violent crime are down significantly. Rates are historical lows in most cases.

We have made great strides towards providing a richer quality of life for our people and their families. Fifty-four percent of our soldiers are married; we've got over 1.2 million family members. Seven hundred thousand are children (half of them are under the age of six).

Substantial resources have been programmed for, and invested in, quality of life and family programs. For FY 1987, we are budgeting six billion dollars for our quality of life programs. We will continue to improve living and working conditions and will meet a diverse set of needs, ranging from family housing to child development to maintenance and repair shops to soldier and family services.

These efforts are worth every dollar that we invest. As I visit Army units around the world, I see the payoffs of our "quality of life" initiatives for soldiers and their families in terms of their increased commitment to their jobs and to a more ready Army. They see these improvements, and their own resolve to serve our Nation increases. Thus, the better soldiers and their families feel about the Army, the better is Army readiness.

Let me share with you a letter that makes this point. It's from a young paratrooper whom doctors saved from death after a parachute accident:

> Life's difficulties are always cropping up, but in the Army, people make up for the things that go wrong. There is always someone who will help in the Army. When the doctors thought I would never make it, my unit never gave up.
>
> They stayed behind me and behind my wife and my family the whole way. Words cannot express my thanks and the thanks of my wife for the care that my company commander, my first sergeant, and my Army buddies showed during the most difficult time in our lives.
>
> And that's what the Army is all about. Taking care of each other. I appreciate what the Army is doing for families.

And, you know what? I'm proud to be a soldier.

So it takes more than just resources to build that kind of commitment; it takes a caring attitude by people within the organization. I know several of the work panels are looking at "work vs the family" and "organizational cultures." Do your work well; we need your help.

Our young people are "seed corn" for the future. The Army cannot afford to lose them. Also, we can't afford to lose our more senior NCOs -- the "backbone" of our Army -- as we did several years ago; because that means a loss of leadership and experience that takes years to recover. The concept is simple: Take care of your people, and they'll take care of you.

MODERN EQUIPMENT AND UNITS

Quality people deserve quality equipment, particularly when we may be outnumbered by our potential enemies. A key improvement to our military capability is modern equipment for active and reserve forces. Modernization means both enhanced readiness and sustainability. That means a better capability on the battlefield and better reliability rates.

Through FY 1986, Congress will have authorized the Army to procure 5,000 Abrams tanks, 3,700 Bradley fighting vehicles, 1,600 Apache and Black Hawk helicopters, 350 multiple launch rocket systems, and many other new items of equipment. We've accomplished much, but much remains to be done. The Army's modernization program started 3 to 4 years after the Navy's and Air Force's. Basically, only one-third of our units are modernized. We need resolve to finish the job . . . peace depends on us.

The Reserve components are getting their fair share, too. This year, the National Guard and Army Reserve will get about 2.1 billion dollars worth of distributed equipment. For example, they're getting the new M1 Abrams tank and the fully modernized, product-improved, M60A3 tank. The idea is: The "first to fight, is the first to be equipped."

They're also getting full-time specialists and technicians to support equipment modernization and to help prepare for mobilization and deployment. The manpower end strength of the Guard and Reserve is up, too. Soon, the strength of the Reserve components will exceed that of our active forces.

We rely heavily on our National Guard and Army Reserve. They provide 50 percent of our combat battalions, 50 percent of our combat support, and almost 70 percent of our combat service support. They get "top-of-the-line" simulators, take part in exercises with active forces overseas, and they train at the National Training Center, Fort Irwin, California. The military capability of our Reserve components has come a long way in recent years.

Beyond equipment, we are modernizing the organization of our Army, giving it better balance and increasing its combat power. Our heavier forces (such as mechanized and armored divisions) remain oriented towards central Europe and the NATO commitment. Our lighter forces (such as the airborne and air assault divisions), and especially the Army's new light divisions, have increased our strategic flexibility and deployability. Thus, they enhance our ability to deter war, because "deployability is deterrence." These light divisions, along with our improved special operations forces (our rangers and special forces), give the national command authorities the options needed to handle all challenges, especially low intensity conflict, the most likely type of conflict expected in the future.

TECHNOLOGY AND PRODUCTIVITY

Within the overall composition of the total Army, we have increased our combat capability substantially. For the Active Army, we have created 29 additional battalions through FY 87, with 21 more programmed between now and FY 91. This increase has been accomplished essentially within the confines of a constant end strength -- a limit of 781,000 soldiers -- for our active forces. We have "grown" almost a like number of combat battalions in the Reserve components.

These increases have resulted from a number of initiatives that have enabled us to convert support manpower into combat power.

- Productivity enhancing technology, for example, use of multiple subscriber equipment saves 8,000 spaces; use of palletized loading system saves 13,000 (during mobilization).
- Organizational modernization, for example, building more and smaller units, with more capability.
- Headquarters reductions, for example, Army staff and major commands.
- Reserve component growth, for example, greater responsibilities.
- Civilian substitution, contracting (perform service support).
- Host nation support, contingency contracting (perform service support).

The Army leadership has chosen to keep the end strength constant for the active forces in order to protect our readiness, sustainability, essential modernization, and people programs. We have disciplined our appetite for active end strength increases so that we can maintain the overall quality of our forces and capitalize on productivity enhancing technology. This was a tough choice (much easier to ask the Congress for more people) that requires a willingness -- and the courage -- to innovate. But, its been a key part of our strategy for building and equipping today's Army.

JOINTNESS

"Jointness" is vital to success in combat. If we had to go to war tomorrow, we would go jointly. We go on someone else's ships and on someone else's aircraft. Someone else "sees deep" for us and "strikes deep" for us. The Army, by virtue of its business, has to be the most joint of the services.

General Gabriel, the Air Force Chief of Staff, and I instituted the joint force development process in May 1984. The objective remains to develop complementary rather than duplicative capabilities, to fill voids in our warfighting capabilities, and to increase total force effectiveness in direct support of the warfighting commanders-in-chief. We have broadened participation in the process to include the other services.

We have implemented over half of the original thirty-one Air Force-Army initiatives and have added four new ones. The initiatives have resulted in roughly a billion dollars of near-term cost avoidance as we have reduced or eliminated duplicative programs. Similar agreements with the Navy are helping to improve our strategic sealift and logistics-over-the-shore capabilities.

I am pleased to note that the "spirit of jointness" between General Gabriel and myself has been picked up by our respective Deputies for Personnel. Lieutenant General Bob Elton of my staff and Lieutenant General John Shaud, the Air Force Chief of Personnel, a few days ago selected 10 initiatives for implementation that will go a long way in improving integration between the Army and Air Force personnel staffs.

STEWARDSHIP

As we have improved our military capability in terms of people, equipment, force structure, doctrine, training, and support, we have become better stewards of the resources entrusted to us. Stewardship is a key issue in the eyes of the American public. Nothing less than their confidence and trust, and our credibility, are at stake.

We've got to invest wisely in research and development which allows us to capitalize on the "tiger of technology," an animal we must ride or fall off and be eaten. It's the only way we can keep pace with a rapidly changing and sophisticated threat. Research and development provides leverage for the future and is vital for the development of systems that will allow us to capitalize on airland battle doctrine.

Also, we're improving our procurement practices. We've appointed competition advocates throughout the Army to promote competition, drive down prices, and improve product quality. Last year, 46 percent of our contract dollars were awarded competitively. This year, our goal is 50 percent, and we're going to achieve that objective. Along these same lines, multi-year procurements create economies of scale and are reducing costs substantially in those cases where we can let contracts for more than one year. We've got to give the American taxpayer the most benefit for every dollar invested.

So, we have a vision, and we're on the way to its fulfillment. Closely related are some corporate themes whose roots run deep in our culture.

VALUES

Each year Secretary Marsh and I choose themes as a way to focus attention on issues important to our Army. Previous themes have included the concepts of "victory," "physical fitness," "excellence," "the Army family," and "leadership." These themes are not abandoned at the end of the theme year. Rather, they're continued, providing a steady flow of ideas and programs that influence how we do our business.

This year's theme is values. The reason is self-evident. Lately, we've seen too many Americans willing to debase their patriotism and fidelity for profit, and we've heard too many allegations of waste, fraud, and abuse by contractors and military procurement folks.

Values are what we, as a profession, judge to be right. They're more than words -- they're the moral, ethical, and professional attributes of character. It's character that enables us to withstand the rigors of combat or the daily challenges that might tempt us to compromise our principles.

Strengthening values will enable us to strengthen:

- Our inner self, i.e., our personal and professional development.
- Our bonding to others, i.e., unit cohesion or family ties.
- Our commitment to a purpose beyond that of ourselves, i.e., to our profession or to our country.

In closing, let me share a letter with you from an Army wife who lost her husband in the crash at Gander, Newfoundland:

> "Let me thank you for myself, for all the other wives and families of our dear fallen Eagles, for the fallen Eagles themselves, but most of all for my late husband, for sharing with us in our grief and sorrow . . . and for the tribute paid to him after his death."
>
> "Rudy was a professional soldier who loved what he was doing. He was very proud of his two tours in Vietnam as a captain of Cobra gunships and recently of his three tours with the MFO in the Sinai."
>
> "I was, I am, and I always will be very proud that my husband was a professional soldier . . . and a damn good one."

Doesn't her letter speak to us of values? Out of the depth of grief, her letter speaks to us of inner strength. Her letter speaks of strong bonds with the family and bonds with the military. Her letter speaks of patriotism and pride in her husband's commitment to service -- a commitment above self.

We have an obligation to provide the kind of leadership that capitalizes on the resources entrusted to us -- human, or otherwise. However, you and I know that the human dimension is what really counts. For us, the challenge is to "grow" that dimension to its fullest. This Forum is an impressive attempt to do just that.

I extend my best wishes for your great success. Thank you.

ADDRESS BY
THE HONORABLE DONALD A. HICKS
UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING
TO THE
SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

Thank you for the introduction. There's one element of it I would like to reorient a bit. I don't really consider myself to be a "former Defense Industry Executive." I consider myself to be a defense professional whose career began in the military in World War II and has continued through academic training, industrial experience, and service in government.

I want to spend the next several minutes discussing problems and prospects defense professionals -- both in and out of government -- are now confronting.

In 1980, there was a tremendous consensus for rebuilding America's neglected defenses. President Reagan and Secretary Weinberger have done an outstanding job of obtaining the required resources -- a 50% real increase -- and of translating those resources into readiness, sustainability, and force modernization. The combined effect, of course, is an enhancement in our deterrent capability.

Lately, however, we have begun to see this consensus erode. Encouraged by "horror stories" about expensive toilet seats, dog kennel fees, etc., a deficit-weary American public isn't so sure anymore.

Let's talk for a minute about waste, fraud, and abuse and my views on what this celebrated phrase does and does not represent.

First, what it does not. For that I want to tell you a little story about an exchange I had with Senator Levin of Michigan. Before my confirmation Senator Levin called me in to reassure himself that someone who had been in industry as long as

I had could be counted on to be tough in his dealings with it. Could I be counted on to make sure that industry used the "taxpayer's money" wisely?

At that point I had to tell we had a problem because I disagreed with his basic premise. When the Defense Department contracts with private industry to produce something, then, in our free enterprise system, the money to buy the good doesn't belong to the buyer anymore. It's the property of the producer who will presumably use his best management judgment to deliver a quality product to the buyer. To really believe in this notion of "watching over taxpayer resources" is the equivalent of an admission that we have a *de facto* nationalized industry.

In my judgment, if that's what we really have, then we ought to recognize it, make it official, and accept the outcome of half the product for twice the price that plagues our friends in Europe.

Then I asked Senator Levin to try to put one of these stories -- the much reported and decried charging of dog kenneling fees to the government -- in perspective.

"Suppose for a minute that you're the general manager of a division of a big company. You've got an important overseas project that's in deep trouble. The only thing that can give you a chance of saving it is to replace the program manager. You evaluate all the potential candidates, and you identify one highly qualified individual who you think can get the job done."

"You call him in, and you explain the company's need. You also tell him you realize the location is not particularly appealing -- in fact, it's a real hardship area of the world -- but the company will try to make up for some of that with special allowances, provisions for home leave, etc. Of course, he can take his family at no personal expense."

You can see him thinking through the ramifications. It's clear he's a loyal employee; he relishes the challenge of the assignment, and he certainly doesn't want to see a major project go down the tubes."

"But then he says, 'Wait a minute. What about my dog?'"

"You say, 'What about the dog? Can't you sell it?'"

"He says, 'Oh no. My wife thinks of him as our third child. She'd divorce me. And with quarantines and other restictions, there's no way we would take him!'"

"Now, you're the general manager, trying to do the best management job in an area of grave concern to your company. So what do you do? Probably you offer to board the dog in a kennel, at company expense, so that your preferred candidate will accept the critical assignment."

"Such a decision does not represent waste, fraud, or abuse, but rather an individual's best management judgment about how to keep a valued employee (he can always go somewhere else in our free enterprise system) and encourage him to undertake a difficult task."

Having said that a lot of things labeled as waste, fraud and abuse really aren't, I also recognize there are some bad people who do bad things in the defense industry. That's inevitable in a society where, on average, one out of every 100 people is crooked.

Inspector General Sherick has identified some real cases of criminal behavior which I know concern you as much as they do me.

For example, five moving and storage companies in Columbia, South Carolina, located adjacent to Fort Jackson, agreed to fix the rates charged for providing nontemporary storage of household goods of military personnel. Specifically, these companies discussed with one another their rates and agreed to submit rate proposals which were not only noncompetitive but also excessive. Each company then falsely certified that their rates were determined independently and without collusion. This artificial establishment of uniformly high rates resulted in an estimated loss of $800,000 to the government.

As a result of a cost mischarging investigation of Sperry Corporation, the government obtained evidence that during 1980 and 1981, Sperry employees falsely filled out time cards indicating work on an Air Force contract that was below the contract ceiling price, while actually working on projects properly chargable to bid and proposal and independent research and development costs, which were over their ceiling. These false costs were then contained in the progress payment requests submitted to the United States.

Sperry agreed to plead guilty to three counts of fraud and pay a minimum fine of $30,000, double damages of $650,000, and $167,740.86 as interest on the double damages. Sperry also agreed to discipline its employees, reduce its claim for recoverable legal expense by $300,000, and take certain administrative steps, enumerated in a separate administrative settlement, to avoid the problem in the future.

The instances of perceived and real waste, fraud, and abuse have surely contributed to the erosion of our defense consensus. In my view, they have also contributed to accelerating a trend of the last decade toward too much oversight and micromanagement. Sometimes we in the Department do it ourselves as we rush to regulate some aspect of our behavior before Congress legislates it. I oppose that. If you don't believe something is right, it's dumb to do it to yourself to avoid having it done to you by Congress.

Congress -- with the changes in its oversight role that have occurred over the last decade or so -- also is a big part of the problem. Changes in the seniority rules have ended a strongly disciplined system -- albeit not without its drawbacks -- and replaced it with what one member has described as a situation in which "we are 435 or 100 atoms bouncing off each other and colliding. There used to be much more structure, but the old glue that tied atoms into molecules has been greatly weakened."

I sometimes think that all 535 atoms have a direct role in defense oversight. At the very least, we can say that 10 years ago, 4 committees wrote legislation on defense. Today some 24 committees and 40 subcommittees have a role to play in defense oversight.

In FY 1970 Congress asked us for 36 reports and studies. In FY 1986, that number jumped to 676 -- up a whopping 1778%!

Last year Congress changed 18,000 separate DoD programs -- changes which required 400 - 500 pages of explanation.

Congressional staffers number in the thousands, and we in DoD and you in industry proliferate people, rules, regulations, and other implementing mechanisms in response to all this congressional activity. Somebody recently told me that last year alone, there were 54,000 official government visits to the Boeing Company.

So far, I've been critical of DoD and the Congress. To fit the last piece into the puzzle, I want to talk about industry. You've had ups and downs during this period of the gradual decline of our defense free enterprise systems.

However, these statistics on net income for defense contractors suggest that the defense business has not been a bad place to be lately. Lately, the defense industry has been, roughly, twice as profitable as the rest of the durable goods manufacturing sector. While you complain about the adverse effects of micromanagement, you are quick to argue your company's interests to your elected representatives. The result of this, of course, is defense legislation laden with pork barrel provisions. The Department is told in excrutiating detail what to buy -- including, in some cases such as the small ICBM, design specifications. Some of the things it tells us to buy are things we haven't asked for, and for which we see no military need.

Don't get me wrong. There are no absolutes of right or wrong associated with pork barrel. In a democracy, no one questions constituent rights to lobby for special interests. However, carried to the extreme of pork becoming the rule rather than the exception, you pay a price. You in industry effectively become wards of the Congress, and you owe the institution something. That something is license to oversee and meddle in almost every aspect of your business.

When we get to a situation where everyone depends on the largesse of government, then we've turned our back on free enterprise and accepted the reality of socialism.

So far my message is tinged with pessimism -- perhaps more than I actually feel. Right now there are good people in the Congress who realize that things are wrong and that we've got to change. They want to see their institution function more like a board of directors and less like a group of dissident shareholders. The work of the Packard Commission is a tremendously positive contribution. We have to get on with the business of acquiring the right weapon systems in a timely and cost effective manner.

To help us achieve that objective, I am asking you in industry to resolve to stand on your own two feet more -- to use Congress less to influence, overturn, or end run decisions of the Department. I'm not naive enough to believe we can eliminate lobbying or pork. Nor would I, in our democracy, want to encourage such an objective. Let's just get it under control.

For my part, I first promise you that I will work ceaselessly to eliminate unnecessary oversight and regulation. I will work within the Department and in the Congress to establish a climate where DoD and the defense industry are viewed as partners in a process that aims to weed out the few crooked individuals.

Second, I promise you that I will work very hard to make this process more rational. I will do that by doing my personal best to ensure that we do not start programs until we fully understand the nature of our military requirements. Once we have such an understanding I will work to see that we press on toward meeting those requirements through performance as opposed to hardware specifications.

These changes are essential if we are to obtain the weapon systems necessary to maintain deterrence.

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OVERVIEW OF MODERATED DISCUSSION OF PANEL FINDINGS

MR. DAVID A. WEEKS
SENIOR VICE PRESIDENT, RESEARCH AND PROGRAM
THE CONFERENCE BOARD

AT THE

SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING FOR PRIVATE SECTOR AND DEFENSE LEADERS

The following is an overview of a wrap-up panel discussion among the panel chairmen. This discussion was moderated by Mr. David Weeks, Senior Vice President, Research and Program, The Conference Board.

The organizational environment -- whether private or public -- is changing rapidly. Nowhere are these changes more evident than in the mission and orientation of the human resource function. The personnel function of the 1970's, peopled by advocates and ombudspersons, is developing a bottom-line credibility and a business-management focus. Surprisingly enough, these changes are as apparent in the armed services and among the civilian employees of the Department of the Defense as they are in General Electric or Saga Foods.

Until recently, however, little or no attempt was made by human resource professionals from one sector to learn from their colleagues in another. To address that gap, the Office of the Assistant Secretary of Defense undertook to mount this joint program to stimulate an interaction that has proven beneficial for participants from both sectors.

This brief summary of some conclusions and issues raised by the participants is provided for those interested in the changing role of human resource programs in the United States today and in the trends that will set tomorrow's agenda in this increasingly complex field.

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Where so much time and effort are spent on both detailed and complex problems, as at this two-day conference, it helps to stand back from the picture and look at the major conclusions.

A comparison with a similar meeting one year earlier shows a real clarification in the minds of the panelists -- from both the military and the private sector -- about what is happening now and what is likely to happen in human resource management.

Since 1985, most of the panelists have concluded firmly that the changes affecting their business and professional lives are fundamental, inevitable, continuous--and even desirable.

More important, they generally agree that the human resource function has a key role, not an advisory role, in making change happen. The human resources professional is taking the lead in planning with senior policy management what the direction, pace and effect of changes will be. In short, panelists find they are expected to help set the context for change.

A second new direct responsibility is also clear to all this year: human resources has a primary role in implementing change. The human resource professional is moving rapidly from policy advisor to manager.

The panelists took note of five key environmental constraints that are certain to cause problems in this newly expanded role:

- A shift in many organizational missions.
- Continuing shrinkage in the ranks of management.
- Budget austerity trends.
- Increasing competition between sectors for talent and skills.

- Changes in employee, management, social and family values.

The new objectives for human resource management and the organizations guided by them were characterized as difficult but not impossible:

- Instigate and shepherd changes in organization culture.
- Stimulate and channel innovation.
- Develop people; then trust them.
- Put programs and decisions into a human scale and a family context.

The panelists were hopeful and more inner directed this year concerning their ability to handle the new assignment. They based their hope on the fact that a good deal is known about using reward systems, measuring effectiveness, and training and developing managers.

The major qualms were related to the accountability for designing change and for stimulating innovation within the broad organization.

In thinking these matters through, the participants came away with a much clearer analysis of the issues at hand for this year and next -- and a much clearer vision of ongoing actions within and among sectors that will make the human resource job achievable, if not easy.

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SECTION 3

NATIONAL FORUM ISSUES, PROCEEDINGS AND PANEL REPORTS

In his welcoming letter to the participants, Assistant Secretary Cox, the National Forum sponsor, summarized both the broad parameters of the human resource planning issues to be addressed and the desired outcome of the proceedings:

> Welcome to the second National Forum on Human Resources Planning for Private Sector and Defense Leaders.
>
> Many management, manpower, training, and personnel problems are common to both government and industry. As we look to the next decade it is clear that a sharing of the best thinking and experience of both sectors could be mutually productive in the national interest.
>
> Indeed, such an exchange can be critically important in an era of fiscal constraint, economic challenge, massive technological change, and evolving new individual and social value patterns. Human resources complexities in this environment challenge each of us to manage our people most efficiently and effectively. We open this Forum in a search for new and better ways to do so.

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> Last year the first Forum made a strong beginning to explore the issues, determine those areas where a continuing exchange will be useful, and identify the mechanism for sharing and a vehicle for future dialogue. The prime objective this year is to continue along the path pioneered so well by last year's participants.
>
> Your personal involvement is vital to the achievement of this objective. It is the essential element in continuing and strengthening this dialogue between the government and the private sector on the Nation's most urgent human resource management challenges.

As summarized in preceding sections of this report, the bulk of available time during the National Forum proceedings was devoted to a personal exchange between private sector and government leaders. From the outset, this interchange was seen as the heart of the National Forum's purpose -- an essential step in continuing and strengthening the dialogue between the government and private sectors.

To assure reasonable coverage of the many important issues facing human resource planners, to fully exploit the relatively brief time available for that purpose, and to make the time of maximum benefit to each panelist, the National Forum participants were:

- Assigned, based on their preference and their primary areas of expertise, to one of 10 separate subject area panels.

- Furnished with an issue paper developed for consideration by their respective panels, as a means of stimulating thinking and suggesting potentially fruitful directions which a continuing dialogue might profitably take.

- Informed of a policy of non-attribution. Views expressed by Forum members are not identified with any particular person or organization outside the panel room. This policy was established to encourage open discussion of the panel topics.

- Informed that neither the titles of their respective panels, nor the issue papers officially provided to them, were designed to channel, limit, or constrain their deliberations in any way.

Consonant with these broad guidelines, each panel prepared a draft report of its proceedings and furnished that draft to the Forum's Administrative Support Center at the close of panel proceedings on 8 May 1986. Using word processors, the Administrative Support Center returned the typed drafts to the panel chairmen for their review/revision on 9 May 1986. These draft reports were furnished to the National Forum participants prior to adjournment. At the last general session, on 9 May, the private sector executives occupying the 10 panel chair positions presented a summary of their respective panel results to the assembled Forum participants as a part of a moderated panel discussion.

The results of the panel deliberations are presented in ten appendices to this report, numbered to correspond with the respective panel topics. Each appendix contains:

- The name and affiliation of each member of the panel, and of the recorder who sat with and supported the panel deliberations.

- The text of the panel report.
- The text of the issue paper originally presented for panel consideration.

PANEL 1 TOPIC: THE AUSTERE BUDGET AND HUMAN RESOURCES MANAGEMENT: CONTRIBUTIONS AND CHALLENGES

PANEL MEMBERS

Mr. Robert E. Foster -- Chair
Deputy Director
Personnel and Administration
Grumman Aerospace Corporation

Mr. Allan Janger
Executive Director
Management Systems Program Group
The Conference Board

Mr. George N. Johnson, Jr.
Vice President
Compensation and Benefits
Pfizer Inc.

Dr. Thomas Saving
Chairman
Department of Economics
Texas A&M University

Mr. T. G. Westerman
Staff Vice President
Human Resources
Hughes Aircraft Co.

Colonel Billy Deames
Deputy Director of Manpower and
Organization
Headquarters, United States Air Force

Rear Admiral Francis R. Donovan
Commander
Navy Military Personnel Command

Brigadier General Claude E. Fernandez, Jr.
Director, Manpower Programs and Budget
Headquarters, United States Army

Colonel Donald Festa
Head, Manpower Policy, Planning,
Programming and Budget Branch
Headquarters, United States Marine Corps

Mr. Pat L. Schittulli
Director of Civilian Personnel
Headquarters, United States Air Force

Major General Stuart H. Sherman, Jr., USAF
Deputy Assistant Secretary of Defense
(Guard/Reserve Manpower and Personnel)
Office of the Assistant Secretary of Defense
(Reserve Affairs)

Captain Edward Sullivan, USN
Director
Personnel Administration and Services
Office of the Assistant Secretary of Defense
(Force Management and Personnel)

Major G. C. Spradling -- Recorder
Training Department
Headquarters, United States Marine Corps

PANEL 1 REPORT

THE AUSTERE BUDGET AND HUMAN RESOURCES MANAGEMENT: CONTRIBUTIONS AND CHALLENGES

I. THE ISSUES:

- Given the current compensation system there are ways to make the military more efficient
- An effective reduced force is possible with an efficient compensation system
- The whole manpower-personnel system can be made more efficient by prioritizing mission requirements
- The whole defense system can be made more efficient by making necessary changes to traditions, turf, "toys", and trust

II. RECOMMENDED ACTIONS:

- The military and civilian sectors should form working groups and develop solutions to the above issues
- In addition, the following ideas might be considered:
  - Eliminate duplication of management
  - Eliminate unnecessary supervisory layers
  - Strive for longer retention of experienced personnel
  - Reduce the number of personnel responding to Congressional inquiries
  - Eliminate the micromanagement of defense contractor by DOD and Congressional committees
  - Access more skilled laborers through greater use of lateral entry
  - Use an incentive-based pay system
  - Make greater use of retirees
  - Develop alternatives to the current retirement system
  - Pay according to skill and risk
  - Consider separating the Service compensation systems

-- Establish direct accountability and responsibility for unit efficiency

-- Make use of direct compensation both in benefits and cash for greater economic efficiency

-- Divest missions

-- Reduce non-combat related infrastructure

-- Contract out support efforts where possible

-- Explore feasibility of unmanned technology/robotics

-- Improve equipment reliability, supportability and serviceability

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

o The working groups should present their ideas (illustrated in II, above) as part of the next National Forum

ISSUE PAPER

PANEL 1 - THE AUSTERE BUDGET AND HUMAN RESOURCES MANAGEMENT: CONTRIBUTIONS AND CHALLENGES

Prepared By

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Prepared for the

SECOND NATIONAL FORUM ON HUMAN RESOURCES PLANNING

May 8-9, 1986
Sheraton Tysons Corner Hotel
Tyson's Corner, VA 22180

Related Background Papers

DeVany, Arthur S. and Thomas R. Saving, "Life-Cycle Job Choice and the Supply and Demand of Entry Level Jobs: Some Evidence from the Air Force," *The Review of Economics and Statistics*, Vol. LXIV, No. 3, August 1982, pp. 457-465, North-Holland Publishing Company.

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THE AUSTERE BUDGET AND HUMAN RESOURCES MANAGEMENT:

CONTRIBUTIONS AND CHALLENGES

In the 15 years since the introduction of the All Volunteer Force (AVF), the military has shown an increased interest in the optimal structure of both its enlisted and officer manpower pools. Much of this interest has been directed toward the maintenance of sufficient manpower in critical skills areas. This emphasis on critical skills is not surprising since, given the supply conditions the military faces, the existing pay structure ensures that if the critical skills can be manned the remaining force manning requirements will be met.

The emphasis placed by the military on maintaining a sufficient critical skills manpower pool was justified in a regime where military budgets permitted a full-sized combat ready force. We are now faced, however, with the distinct possibility that military spending will be significantly reduced. Such a reduction, using current manpower strategies, could result in a full-sized combat ready force being outside the budget available for military manpower, i.e., the existing manpower pool would be unattainable using current pay, manning, and youth-experience profiles.

The overall force manning problem has been addressed at both the accession and retention level. These two aspects of manning are inextricably related. Increased accessions of qualified personnel and/or better retention both serve to increase the pool in the critical skills area. The entire manning problem can be viewed as a birth-death process where a new accession is a birth and a separation is a death. The population in the manning pool depends in this case on the rate at which new individuals enter the system and on how long individuals stay in the system.

Under an austere budget scenario how can the armed forces respond in order to minimize the impact on its overall mission readiness? The manpower research done over the past 15 years can be utilized to shed some light on this issue. The existing work provides a base for the evaluation of (1) alternative pay-benefit strategies, and (2) alternative experience-force size strategies that can contribute to the solution to manning requirements under an austere budget regime.

The military is a significant demander of entry-level manpower. There are, however, private firms that have sizeable manpower pools, e.g., General Motors (700,000 employees worldwide). The manpower strategies of these firms can provide a basis for the analysis of the general way the armed forces do business. In particular, (1) private firms do not have extensive fundamental training programs that provide non-firm specific training to personnel on a general basis, (2) private firms pay employees according to job skill requirements and do not differentiate on the basis of marital status and number of dependents, (3) private firms hire at all skill levels and to not rely solely on employees moving up from entry level jobs to managerial jobs, and (4) some private firms have significantly lower manager-to-worker ratios than the military.

SOME RESULTS FROM EXISTING STUDIES

Current force management must operate within narrowly defined guidelines where pay structures are concerned. Within the enlisted or officer ranks the military is, except for a few small programs, restricted to offering entry level employees the same pay and benefits regardless of skill level. In the officer corps certain advanced degrees do allow some individuals to enter at above the entry level, e.g., medical doctors. Importantly for the past few years the services have been allocated a small budget for an enlisted bonus program that allows the services to bring individuals with desired skills into the force at above entry level pay. A program of signing bonuses does attract higher skill individuals into the chronic critical skills areas. It must be kept in mind, however, that these individuals have a shorter mean length of stay in the military and greater accessions will be required to maintain any given manpower pool size. Also, without pay differentiation the bonuses must be continued for any long run effect on length of stay.

Given the mission readiness criterion and the necessity that employees, or at least certain groups of them, work as a team, a more egalitarian entry level pay structure among military personnel than exists in the private sector may be desirable. The necessity for a command structure that is consistent with the military mission does not preclude pay differentiation. Pay and command are not related in any necessary way.

Accepting the necessity of a pay structure that is skill level independent does have certain undesirable consequences in a time of austere budgets. Without entry level pay differentiation, attracting the necessary numbers of skilled individuals requires that entry level pay must be such that either lesser skilled jobs must be rationed among an excess applicant pool or that these jobs must be filled with overqualified personnel. Since lower pay for the less skilled could have been used to man the lower skilled jobs, either of these alternatives leads to increased cost for any given desired force size.

ACCESSION

The magnitude of this problem can be estimated using the existing work on military accession-retention. By breaking down the estimated accession supply equations by skill cohort, the size of the budget saving available from (or the additional cost imposed by not using) entry level pay differentiation can be measured.

The cost of not differentiating entry level pay is reduced by the current incentive pay system. Incentive pay allocates skilled personnel once they are in the force, in that pay is enhanced once an individual becomes a member of a critical skill. This same critical skill pay enhancement carries through on the retention side because bonus levels are skill specific.

The extent of the misallocation due to the absence of entry level pay differentiation is affected by retention in the various skill positions. The better the retention of skilled people through bonus differentiation and pro-pay, the fewer the skill accessions necessary to maintain the skill force size. The smaller the skill accession requirement, the smaller the inefficiency caused by the lack of entry level pay differentiation.

Once a system of pay differentiation is established, the military could expand its use of lateral entry and significantly reduce training cost. The restriction of training to military specific functions would greatly reduce the overall training cost component of the military budget. The cost of such a change would be reduced accessions since the availability of non-military specific training has been used as a recruiting tool. Since private firms provide little or no generalized training, perhaps the market is telling us something: that such training is not cost-effective.

Questions: (1) Should the military increase entry level pay differentiation by extending the system of signing bonuses? (2) Should the military introduce outright pay differences? (3) Should the military increase the use of lateral entry as a way of maintaining manning for critical skill positions?

RETENTION

The impact of pay differentiation is clearly demonstrated in the retention analysis done by RRC and others. Some of this impact is desirable and reduces the cost of the current entry level egalitarian system of pay. A part of this impact reflects the effect of the military's traditional treatment of dependents. Dependent status affects compensation through allowances for quarters in that individuals with two or more dependents receive an additional allowance that translates into higher pay (the amount of the allowance does not depend on the number of dependents once this number is greater than or equal to two).

The attention of the military to dependent status stems from a relative hardship hypothesis. The view is that the relative hardship imposed on an individual by military service at below market wages depends on the market wage of the individual. Military pay should, under this approach, be at least a minimum subsistence level for those injured by imposed military service. Thus, when a father is prevented from working and supporting his family, the institution responsible for this loss would, in the civil law interpretation taken here, be required to pay those damaged: the family.

It is on this basis, and only this basis, that pay differentiation based on numbers of dependents can be justified. Since the military has moved to AVF status, it now must compete in the general labor market for its employees. In this market, pay is determined by the supply of and demand for the skill required. Family size enters this result only indirectly through its effect on the incentive to acquire the skills necessary to earn a wage that will support a given family size.

The primary effects of the existing system are: (1) encouraging dependent acquisition by benefitting those who acquire dependents, and (2) increasing the retention rate of individuals with dependents since their pay is higher. Our retention results indicate that the probability that randomly chosen airmen will reenlist is significantly greater for those airmen with two or more dependents. As a result, the military is, in its experienced employee pool, in a position of being more heavily weighted with high dependent status employees than the private sector.

Question: Should the military do away entirely with pay based upon dependent status?

POSSIBLE CHANGES IN BASIC ORGANIZATION STRUCTURE

The past 15 years have seen an increase in the success of certain "lean and clean" firms in a number of industries previously dominated by large firms with traditional ratios of overhead employees to workers. For example, the optimal scale of plant size in the steel, meat packing, and aluminum industries has changed toward smaller firms with smaller plants. The optimal scale of plant changes over time as technology changes, and the military is certainly a place where significant changes in technology occur. As weapon systems undergo significant changes, manning requirements change, and these changes change the scale of the various components of the military.

Many of the new smaller firms have a significantly smaller load of overhead employees relative to workers. Alumax, Inc., the third largest basic aluminum producer, is a case in point. Contrast the Alumax overhead structure with, for example, that of Reynolds Aluminum, one of its competitors. At its corporate headquarters in Richmond, VA, Reynolds has some 2,000 employees, none of whom make any aluminum products. Alumax, in contrast, has 8 employees at its headquarters, including secretaries. The Vice President of Alumax is also a plant manager.

Have we, in the move to more sophisticated and specialized weaponry, outgrown the need for a large management base? Can we reduce significantly the size of the officer corps relative to the enlisted pool without giving up efficiency? Or perhaps, as in the private sector, would such a move improve efficiency and flexibility?

In the case of private industry there is a natural way that change occurs. Those firms that find new and better ways of doing things are more successful and are emulated by others. In this way the new supplants the old. There is no equivalent to competition in the military establishment, except during conflict, where organizational structure gets its real test. Such conflicts, fortunately, do not occur on a continuing basis. In the absence of competitive forces, how can the military adapt to technology change? Certainly such adaptation must proceed more slowly than in the case where a market test is continually being conducted. But such change must go on and examples from the private sector represent a continuing source of ideas.

Question: Should the military reevaluate its management structure with the goal of optimizing the level of management overhead?

CONCLUSIONS

If the military is faced with significant reductions in its budget, how can it respond without a significant sacrifice in its mission readiness? The answer to this question is not a simple one, but there are a number of areas, at least in the manpower arena, where existing work suggests changes might contribute to greater efficiency. Specifically, changes in the pay structure of the military offer the possibility of reducing the cost of any given level of mission readiness. Increasing the level of skill pay differentiation will reduce the cost of maintaining the existing manpower pool. In addition, changing the proportion of the manpower pool that is entry level versus lateral entry offers additional benefits.

The possibility that the military could benefit by a thorough investigation of the changing management structure in the private sector should be considered. The new breed of lean companies is making inroads into the business world. These firms have a management-to-worker ratio that is significantly lower than in traditional private firms. Given the tremendous change in weapons technology and the reduced enlisted manpower pool, perhaps the military is overmanaged.

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LIFE-CYCLE JOB CHOICE AND THE DEMAND AND SUPPLY OF ENTRY LEVEL JOBS: SOME EVIDENCE FROM THE AIR FORCE

Arthur S. De Vany and Thomas R. Saving*

THE theory of occupational choice has largely left the choice of job and duration of employment in jobs unexplained. If agents plan a length of stay on the job when they are employed, then turnover is determined when a new hire is made. In the steady state, new hires replace losses from the employment pool, and hence the demand for new employees reflects the supply of employment duration as well as demand behavior. The employer's demand for a stock of employees and the supplied duration of employment determine the flow demand for new hires. If flow supply and demand are in equilibrium, the supply of workers and their planned duration of employment must support equality of replacements and losses. An adequate theory of the labor market must explain these stock/flow relations and provide some basis for separating demand and supply behavior.

In this paper we develop a model of this process and estimate the model for the U.S. Air Force enlisted personnel market. We begin with a simple theory of the life-cycle job choice problem. This theory posits job sequences as the objects of choice and the optimal sequence determines the type of job chosen at each point in the life cycle as well as the duration of employment in each job. This simple theory of life-cycle supply is integrated into an inventory model of employment demand to achieve an equilibrium model. The model is extended to consider the complications introduced by stochastic supply behavior and quality rationing by the employer. The sources of bias in supply elasticity estimates of conventional labor supply models are identified and discussed. Finally, the model is estimated using data on Air Force enlisted personnel.

I. Life-Cycle Labor Supply

Assume that individuals rank bundles of consumption and years in alternative jobs. Such an individual may choose a corner solution, spending his entire working life in a given job. However, most individuals choose several jobs over a lifetime, in particular, military enlistees choose lifetime work patterns with positive quantities of both military and civilian working time.

Assume that individuals make choices over permanent consumption and lifetime non-work time N. Let this relation be summarized by the utility function[1]

$$U = U(g,N). \tag{1}$$

Further, assume a total length of life T that is known with certainty. Consider two alternate jobs M, an entry level job which may provide training for C, a skilled job. The time constraint is

$$T = N + M + C \tag{2}$$

where M and C denote time spent in jobs M and C, respectively.

For given earnings profiles in jobs M and C, permanent consumption can be written as

$$q = m(M)M + c(M,C)C \tag{3}$$

where $m(M)$ and $c(M,C)$ are earnings scalars that are functions of the rate of interest and the earn-

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[1] Herein goods consumption is treated as a permanent consumption stream. Any planned variation could be accounted for by expressing g as the present value of planned consumption expenditures. This generalization does not affect the analysis to follow except to add to its complexity. In addition, jobs are being treated as factors of production by individuals.

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ings profiles in jobs M and C.[2] The assumption that $m(\cdot)$ is only a function of time spent in occupation M is made because occupation M is being treated as an entry level job. Further, we assume that (3) has the following derivative restrictions:

$$m_M > 0; c_M \gtreqless 0; c_C > 0.$$

Increases in years spent in the entry level job increase its multiplier since its stream of earnings will be longer and because of learning by doing. The skill job multiplier is related to years in the entry level job because increased time in the entry level job reduces the length of the skilled earnings stream and delays its inception. As an offset to this negative effect of increased time spent in the entry level job, the skills acquired in the entry level job may increase earnings in the skilled job. If the skill effect is greater than the time effect, then the derivative c_M could be greater than zero. The skill job multiplier, $c(M,C)$, is positively related to years in the skilled job because of a longer earnings stream and learning by doing.

For any given level of N, M and C must be chosen so that permanent consumption is a maximum. Thus, we have

$$\begin{aligned} m_M + m + c_M C - \lambda &= 0 \\ c_C C + c - \lambda &= 0. \end{aligned} \tag{4}$$

The variable λ is the Lagrangean multiplier associated with constraint (2). These first-order conditions must be satisfied by the optimal levels of C and M given that both are positive. Alternatively, inequalities will hold for solutions where either M or C is zero. It is easily shown that upward shifts in the earnings function for job M or C increase the desired duration of employment in that respective job. Additionally, such increases in the earnings function for job M or C increase the number of individuals with positive durations in job M or C, respectively.

II. A Simple Stochastic Inventory Model of Employment Demand and Supply

The inventory of employed personnel is determined through demand and supply forces in the two inter-connected markets we have described—the supply of labor of a given quality and the supply of employment duration, both of which are given by the life-cycle job model. We assume the demand for labor can be depicted as a demand that a personnel inventory be maintained. The flow of new hires required to maintain this inventory depends on the turnover rate per position, which is the inverse of the mean length of stay, and the size of the desired inventory.

The expected supply of entrants S, to job M may be written as

$$S = S(\overset{+}{m},\overset{-}{c},\overset{+}{\theta}) \tag{5}$$

where θ is the quality of entrant and the assumed signs of the partial derivatives are noted above the argument. These signs follow from the preceding discussion of the life-cycle job market and we have assumed for expositional convenience that earnings profiles in both M and C may be summarized by the scalars m, c.

The supplied duration of employment, D, to job M is

$$D = D(\overset{+}{m},\overset{-}{c}). \tag{6}$$

We have assumed that duration is unaffected by the quality of the manpower pool. As indicated in the discussion of life-cycle job choice, an increase in the job M wage increases duration in M and an increase in the job C wage, for given experience in M, reduces duration in M. Since the earnings path in job C is dependent on time spent in job M, the scalar c in (6) must be evaluated at some mean time spent in M.

The demand for new hires depends on the employment level to be maintained, E, and the probability that the representative employee will leave the firm in any given unit interval. Assume that the number of members leaving can be represented by a stationary stochastic process. Then

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[2] The present value of lifetime earnings PV is

$$PV = \int_0^M e^{-rt}m(t)dt + \int_M^{C+M} e^{-rt}c(t;M)dt$$

where r is the interest rate and $m(t)$ and $c(t)$ are, respectively, wage rates in the entry level and skilled occupations. Permanent consumption is

$$g = rPV/(1 - e^{-rT}).$$

Using the mean value theorem of the integral calculus we can write PV as

$$PV = \bar{z}M + \bar{w}C$$

where $\bar{z}$ is in the region bounded by the minimum and maximum of $e^{-rt}m(t)$ and $\bar{w}$ is in the region bounded by the minimum and maximum of $e^{-rt}c(t,M)$. For fixed r and $m(t)$, $\bar{z}$ depends only on M and $\bar{w}$ depends only on M and C. Thus, we can write the present value of the income shown as (3).

the steady state expected number leaving, l, will equal the employment size, E, divided by the mean duration of employment, D,

$$l = \frac{E}{D}. \tag{7}$$

This result follows from the fact that in the steady state the distribution of personnel by desired length of service will be identical for every entering cohort. Thus, the probability that any randomly drawn individual will leave the firm during the next interval will be $(1/D)$. Equation (7) then reflects the fact that the expected number leaving the firm in a unit interval is simply the probability of leaving times the number employed.

Equations (5), (6), and (7) represent the employment equations in the flow market. An equilibrium level of employment requires that arrivals and departures be equal so that

$$S = \frac{E}{D}. \tag{8}$$

In a world of uncertainty, either employment will do a random walk around its expected level or wages must be constantly adjusting to ensure that (8) holds.

III. Employment Variance and the Job Offer Queue

Employment level constraints may be imposed on the firm; for example, Congress imposes a personnel force level on the military, or the firm may wish to maintain employment close to some level with high probability. One means of maintaining the employment level in a small neighborhood of a given level, E^0, is to maintain a replacement inventory of employees outside the firm. When a random loss occurs, a new employee can be drawn from this "outside" inventory to replace the loss without waiting for the next applicant to turn up. The larger this outside inventory, the higher is the probability the employment level will be at its desired value at any given future point in time. The firm can increase the line of waiting employees by paying higher wages so that applicants are willing to wait. Alternatively, applicants could be paid some fee for waiting.

This can be formalized by assuming that the probability an eligible individual will agree today on a future employment date is a function of the lead time, L, the entry level wages paid by the firm and the wages in skill jobs,

$$P = P(\overset{-}{L}, \overset{+}{m}, \overset{-}{c}) \tag{9}$$

where for simplicity, we assume that the probability of agreeing on future employment is independent of quality. Average lead time can be related to the expected wait of a simple queueing process. Interpreted in this way, lead time is a function of the expected arrivals of new hires and the turnover rate. Since turnover is a function of the size of the employment pool and the mean duration of employment the expected lead time can be written as[3]

$$L = L(\overset{+}{m}, \overset{-}{E}). \tag{10}$$

Equation (10) determines the equilibrium expected lead time for given values of wages in job M and levels of employment E. Increases in wage m increase lead time since turnover falls and the arrival rate of new hires rises. An increase in the size of the manpower pool reduces expected lead time since it increases total turnover and does not affect the arrival rate of new hires.

Effective supply of qualified applicants, i.e., the arrival rate net of those repelled by the expected lead time, is

$$a = P(L,m,c)\, S(m,c,\theta). \tag{11}$$

The loss rate from the employment pool is

$$l = \frac{E}{D(m,c)} \tag{12}$$

and the equilibrium condition is

$$PS = \frac{E}{D(m,c)}. \tag{13}$$

If the exogenous variables are taken to be wages and employment, (10)–(13) yields solution values for unknowns S, a, l, and θ.

Taking wages and the employment level as fixed makes the employer a quality-taker, and mean quality adjusts to the level that will support

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[3] If a Poisson queueing process without balking is assumed then the expected lead time is

$$L = \frac{D^2}{E(E - PSD)}$$

which yields the signs of the derivatives assumed in (10). See, e.g., Gross and Harris (1974), chapter 4.

equilibrium. The quality-taking system is constrained to the demand curve if quality can always adjust enough to make quantity supplied equal to quantity demanded.

Consider the effect of a change in the entry wage in this employment fixing, quality-taking model. Differentiating the equilibrium condition with respect to m gives

$$\begin{aligned} &P\left(\frac{\partial S}{\partial m}+\frac{\partial S}{\partial \theta}\,\frac{\partial \theta}{\partial m}\right) \\ &\quad + S\left(\frac{\partial P}{\partial m}+\frac{\partial P}{\partial L}\,\frac{\partial L}{\partial m}\right) \\ &\quad = -(E/D^2)\,\frac{\partial D}{\partial m}. \qquad (14) \end{aligned}$$

The terms on the left-hand side constitute $\partial a/\partial m$, holding the employment level fixed, so this condition is equivalent to

$$\left.\frac{\partial a}{\partial m}\right|_{E} = -(E/D^2)\,\frac{\partial D}{\partial m}. \qquad (15)$$

If employers take the market-determined turnover rate as given, accessions move with the turnover rate and thus depend on both replacement demand and accession supply. Since $\partial D/\partial m > 0$, it follows that

$$\left.\frac{\partial a}{\partial m}\right|_{E} < 0$$

and accessions *decrease* with increases in the wage when the employment pool is held constant.

When wages rise quality must increase to support the lower equilibrium hiring flow necessary to maintain the fixed employment level. This can be shown by solving (14) for

$$\frac{\partial \theta}{\partial m} = -\frac{\dfrac{E}{D^2}\dfrac{\partial D}{\partial m} + S\left(\dfrac{\partial P}{\partial L}\dfrac{\partial L}{\partial m}+\dfrac{\partial P}{\partial m}\right) + P\,\dfrac{\partial S}{\partial m}}{P\,\dfrac{\partial S}{\partial \theta}}. \qquad (16)$$

Since the denominator is negative, this derivative is positive if the quality-constant derivative of net arrivals with respect to the wage is positive. To identify the supply curve imagine an experiment that allows the employment level to respond to a change in relative wages. Since the employment level fixes the position of the demand curve for new hires, changes in employment shift demand and trace out the supply curve. Then fix lead time, L, and quality, θ, and let E change with m. Differentiate the equilibrium condition (13) with respect to m, fixing L and θ.

$$\begin{aligned} &S\,\frac{\partial P}{\partial m} + \left.\frac{\partial S}{\partial m}\right|_{\theta,L} \\ &\quad = \frac{1}{D}\left.\frac{\partial E}{\partial m}\right|_{\theta,L} - \frac{E}{D^2}\left.\frac{\partial D}{\partial m}\right|_{\theta,L}. \qquad (17) \end{aligned}$$

The term on the left is the constant lead time, constant quality change in the accession rate

$$\left.\frac{\partial a}{\partial m}\right|_{\theta,L}.$$

If the supply curve is upward sloping, this derivative will be positive. The first term on the right hand side,

$$\frac{1}{D}\left.\frac{\partial E}{\partial m}\right|_{\theta,L},$$

is the supply derivative we are looking for since it is the derivative of the accession rate which holds duration, D, constant as well as lead time and quality. Denote this term as

$$\left.\frac{\partial a}{\partial m}\right|_{\theta,L,D}.$$

The last term on the right, we know from (15) above, is

$$\left.\frac{\partial a}{\partial m}\right|_{E}.$$

Using this notation and solving (17) for the constant quality, lead time and duration derivative yields

$$\left.\frac{\partial a}{\partial m}\right|_{\theta,L,D} = \left.\frac{\partial a}{\partial m}\right|_{\theta,L} - \left.\frac{\partial a}{\partial m}\right|_{E}. \qquad (18)$$

This equation has a natural interpretation: the true supply derivative of accessions, which holds quality and lead time constant must also remove the effect that higher wages have on duration, since changes in duration involve a demand restraint on the observed accession rate. The proper estimate of the supply response to higher wages is to estimate the change in accessions, controlling for quality and lead time, and then adjust this estimate upward by

$$-\left.\frac{\partial a}{\partial m}\right|_{E},$$

which is positive from (15).

IV. Some Evidence for the Air Force Enlisted Personnel Market

The military constitutes the largest single entry level employer. To explain the rate at which individuals sign up for military service, we must first estimate the lead time which accounts for the difference between arrivals and enlistments. From our theoretical discussion and the assumption that the Congressionally mandated force level is met, we have that enlistments are

$$a = P(L(E,m),m,c)\alpha(\theta,m,c,R) \tag{19}$$

where $L(\cdot)$ is the lead time function, E is the employment force level, m and c are military and civilian wages, and R is the size of the age cohort that is relevant to the military recruiting process.[4] For the model which assumes the Air Force fixes the force level and wage, both the expected wait, L, and quality, θ, are endogenous variables. Accordingly, we follow a two-stage procedure, first estimating the lead time and quality equations, and then using these estimated endogenous variables in the final supply equation estimation.

A. *The Data*

The data utilized for this study are from the Air Force Systems Command, Air Force Human Resources Laboratory, Computational Sciences Division. The data include enlistments and manpower inventories on a monthly basis. There are two important dates associated with each enlistment: "Total Active Federal Military Service Date" (TAFMSD, or service date) and "pay date." The latter refers to the date on which the individual executes an enlistment contract, that is, the date on which longevity begins accruing for pay purposes. TAFMSD is the date on which the enlistee actually commences active duty and is placed on the payroll.

Two measures of accessions can be constructed from the data: (1) the number of individuals executing an enlistment contract by month and (2) the number of individuals entering active duty by month. The accessions that the theory describes are the pay date accessions. That is, we have constructed a theory that explains the decision to join the queue for military service. The data that describe the number joining this queue are the number of enlistees by pay date.

The difference between pay date and service date is the wait. From the data two measures of the expected wait can be calculated. First, over all individuals entering the Air Force in a particular month, i.e., have a service date in that month, we can calculate the average time they have waited. Second, for all individuals signing up in a particular month, i.e., have a pay date in that month, we can calculate the average time they waited until they were taken in. Thus, we have a service date wait and a pay date wait.[5]

If the Air Force knows its manpower turnover with certainty and conveys this information to prospective enlistees, then the pay date wait is the relevant expected wait. If, on the other hand, the Air Force has no such information, but simply gives prospective recruits the mean length of wait for individuals entering the force that month, then the service date wait is relevant. Since those individuals in the Air Force who are eligible to reenlist are required to give the Air Force some indication concerning their reenlistment plans, the Air Force does have good information concerning openings for the next year. Thus, it seems reasonable to assume that the pay date wait is the best measure of the relevant queue length for prospective enlistees.[6]

In addition to the mean wait, the fixed force level model has quality as an endogenous variable. We have measured the quality of the incoming force by the ratio of enlistees in Armed Forces Qualifications Test (AFQT) categories I and II to enlistees in AFQT categories III and above, where only those enlistees with less than one year's service are counted. Thus, this variable is the ratio of high to low "quality" personnel as rated by the test scores in the less-than-one-year manpower stock.

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[4] In addition, the military usually has minimum terms of enlistment. In this case, individuals whose optimal M is less than the minimum are faced with "all or nothing" decisions. Increases in the military wage increase the number of such individuals for whom this decision is in favor of enlistment.

[5] There are two separate components of the queue. First, the set of individuals who are waiting to get into the Air Force. These individuals entered the "spot" market but the supply of jobs was not adequate to fill their demand. Second, the set of individuals who want to enter the military at a specified future date. These individuals are in the "futures" market. Our theory is about the first of these but is consistent with the existence of the second. That is, the probability of joining the queue for a given wait could be reinterpreted as the probability of getting an enlistment commitment at time $t - L$ from an individual who wishes to enlist at time t. The same distinction exists in other markets, e.g., metals. Reported lead times consist of two groups of customers, those actually waiting and those who placed orders in advance because of knowledge of the lead time.

[6] In effect we are assuming rational expectations on the part of entering enlistees. As we have pointed out above simply using the prior enlistees' actual waiting time does not utilize all the information a prospective enlistee has concerning his expected wait. In fact, such enlistees have the Air Force's estimate of expected wait which accounts for the expected departures.

Our data ran from June 1969, through June 1976, so that some of the period was before the draft ended. We have chosen to measure the impact of conscription by using a continuous variable rather than a discrete dummy variable. We believe that the effect of conscription is better captured by the probability of being drafted than by the existence of a draft (see Fisher, 1969). We have collected data on the number of inductees and computed the ratio of inductees to the eligible population aged 16–19 years.

Data relating to the civilian labor force were obtained from published and unpublished sources of the Bureau of Labor Statistics (BLS). It was assumed that the relevant group from which potential enlistees are obtained is the total male, non-institutionalized population, ages 16 to 19 years, inclusive. No attempt has been made to adjust this group to obtain an estimate of the so-called "qualified military available." For this age-sex classification, monthly observations were gathered on the following variables: total civilian labor force participants, total not in the labor force, and total unemployed. In accordance with BLS definitions, the total non-institutionalized population of 16–19-year-old males is the sum of those in the labor force and those not in the labor force. The employment rate is, then, unity minus the ratio of total unemployed to the number in the labor force.

Civilian wages were measured as the average weekly earnings of production or nonsupervisory personnel on private nonagricultural payrolls. These data were multiplied by four to obtain monthly wage equivalents. However, no adjustments were made to take account of variations in the length of the work week. These monthly civilian wage data were used to calculate the present value of civilian wages for a four-year period using a 10% discount rate.

The military wage variable was calculated by taking the existing wage scale in any month and estimated time of promotion from data on the distribution of pay grade by length of service for 1970. The projected four-year path of military earnings plus allowances for subsistence and quarters was discounted using a 10% discount rate.

Over the period covered by this study, the enlisted force declined from a strength of almost 725,000 at the end of fiscal year 1969 to just over 480,000 by the close of fiscal year 1976. A force level variable appears in the regressions: it is measured by entering the end-of-fiscal-year manpower ceilings established in the Congressional budgeting process. As a measure of recruiting effort, we have calculated the ratio of Air Force recruiting personnel to all Department of Defense (DOD) recruiting personnel.[7] Finally, three seasonal dummy variables have been introduced: the spring dummy (SP) has the value of 1 for the months of March, April, and May; the summer dummy (SU) equals 1 for June, July, and August; and the autumn dummy (AU) has the value 1 for September, October, and November. Table 1 summarizes the major points discussed in this section.

B. *The Empirical Model*

Our theory suggests that the fixed force level model has two endogenous variables; the wait and the quality of recruits. To account for the endogeneity of these variables, we have estimated the enlistment rate using two-stage least squares.[8] In stage one, we estimate the expected wait and quality using the following equations:

$$\ln PDW = f(\ln E, \ln WR, \ln EMP, \ln RECR, \ln IDRTE, SP, SU, AU)$$

$$\ln AFQRAT = f(\ln E, \ln WR, \ln EMP, \ln RECR, \ln IDRTE, SP, SU, AU).$$

---

[7] No doubt the total level of DOD recruiting affects the supply of recruits to DOD but we do not have a consistent series for this variable.

[8] The equation that identifies the wage parameter of supply is

$$\ln ERATE = f(\ln PDW, \ln AFQRAT, \ln E, \ln WR, \ln EMP, \ln RECR, \ln IDRTE, SP, SU, AU).$$

However, wait and quality are both endogenous variables so that OLS estimates of this supply equation would yield inconsistent estimates of the parameters.

TABLE 1.—VARIABLE DEFINITIONS

AFQRAT = first year *AFQT* 1 and 2/first year *AFQT* 3–6
E = end-of-fiscal-year manpower ceiling
EMP = 1 − unemployment rate
ERATE = enlistments by pay date/population 16–19
IDRTE = military inductions/population 16–19
PDW = mean wait for individuals with same pay date
RECR = Air Force recruiters/DOD recruiters
WR = military wages/civilian wages
SP = spring dummy
SU = summer dummy
AU = autumn dummy

TABLE 2.—STAGE ONE ESTIMATES
OLS

	ln *PDW*	ln *AFQRAT*	ln *ERATE*
C	71.641^a	22.039^a	−59.942^a
	(6.324)	(3.427)	(−5.922)
ln *E*	−5.089^a	−1.497^a	3.714^a
	(−6.474)	(−3.356)	(5.288)
ln *WR*	3.938^a	0.525^a	−0.509^c
	(13.151)	(3.091)	(−1.903)
ln *EMP*	−1.105	0.583	−2.255^a
	(−0.124)	(1.214)	(−2.985)
ln *RECR*	0.982^c	1.102^a	−1.711^a
	(−1.816)	(3.589)	(−3.542)
ln *IDRTE*	0.020^b	0.004	0.005
	(2.066)	(0.710)	(0.527)
SP	0.197^a	−0.014	0.087^c
	(3.313)	(−0.401)	(1.650)
SU	−0.026	−0.053	0.175^a
	(−0.360)	(−1.292)	(2.695)
AU	−0.096	−0.050	0.079
	(−1.417)	(−1.320)	(1.319)
D-W	1.441	0.468	1.504
R^2	0.951	0.285	0.642

Note: *t*-ratios are in parentheses below the coefficients.
[a] Significant at better than the 1% level.
[b] Significant at better than the 5% level.
[c] Significant at better than the 10% level.

For the second stage, we have taken the estimated *PDW* and *AFQRAT* from the expected wait and quality equations and estimated the following equation:[9]

$$\ln ERATE = f(\ln \widehat{PDW}, \ln \widehat{AFQRAT}, \ln WR, \ln EMP, \ln IDRTE, SP, SU, AU).$$

The results of the first stage regressions, and an enlistment rate equation estimated using ordinary least squares, are presented in table 2 below. In the lead time equation, the force level and the relative wage are very significant and of the expected sign. That is, an increase in the force level reduces the queue. Moreover, this coefficient has a *t*-ratio of −6.474. The relative wage variable is even more significant with a *t*-ratio greater than 13.0 and its positive sign is consistent with the theory. In addition, both the relative recruiting strength variable and the induction variable have the expected sign and are significant at better than the 10% and 5% levels, respectively. In fact, only employment is not significant in the waiting time equation.

The quality regression has the expected signs for force level, relative wages and relative recruiter strength and these are the only variables with significant coefficients. The smallest *t*-ratio for these significant variables is 3.091. As expected, increases in the force level for given relative wages force the Air Force to lower standards and quality falls. Increases in relative wages allow the Air Force to raise standards for a given force level so that quality increases. An increase in the relative recruiter strength of the Air Force increases the quality for a given force level and relative wage. This latter result is consistent with work done with Navy data where the marginal product of recruiters was found to be greatest for the AFQT I and II group.

We also show in table 2 the ordinary least squares (OLS) estimates of the enlistment rate by pay date equation with the same independent variables used in the other equations. According to this estimated equation, the force level coefficient has the expected positive sign and is very significant. That is, increases in the force level increase turnover which decreases the wait and quality and accordingly increases the demanded enlistment rate. Relative wage has a *negative* coefficient which is significant at the 10% level. As we have shown above in equation (15), this coefficient is an estimate of the elasticity of the fixed force level, variable quality demand for new enlistments if the Air Force is assumed to take the market-determined turnover rate as exogenous. The negative value of the wage coefficient supports the interpretation that when the force level is fixed, observed accessions are constrained to the demand curve and rationing is by wait and quality.

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[9] Note that this equation has the force level and the recruiter variables missing. The 2SLS estimation requires that at least two exogenous variables be dropped in the second stage. The fact that these variables do not appear does not mean that they are not accounted for since their effects are incorporated in the estimated endogenous variables, $\ln \widehat{PDW}$ and $\ln \widehat{AFQRAT}$.

The employment variable causes both the demand and supply curves to shift since it influences retention as well as enlistment supply. The negative coefficient suggests that high employment reduces enlistment supply by more than it increases losses from the force and, therefore, fewer enlistments are taken. The nonsignificant coefficient of employment in the quality regression suggests that the Air Force does not significantly lower its standards during periods of high employment. This adds some credence to the theory of supply shift, but the matter is far from resolved and it is too early to draw any conclusions.

In table 3 we present two alternative two-stage least squares (TSLS) estimates of the enlistment rate: The first is the standard two-stage least squares (2SLS) regression and the second is based on Hatanaka's two-step method (HTS) for the treatment of autocorrelation (see Hatanaka, 1976).[10] Both estimates indicate clearly the effect of the endogenous variables.[11] The coefficient of wait for both the 2SLS and HTS regressions are negative and significant at better than the 10% and 1% levels, respectively. The coefficient of quality (*AFQRAT*) is also negative but is significant only in the 2SLS equation. The coefficient of relative wage is positive in both equations and significant at better than the 10% level in 2SLS and the 5% level in HTS. The employment rate variable is significant at the 15% level in the 2SLS equation and is significant at the 5% level in the HTS equation. The employment variable has the expected sign in both equations according to our supply interpretation of this equation. Finally, the induction rate variable is positive in both equations and significant at the 15% level in the 2SLS equation.[12]

TABLE 3.—ENLISTMENT RATE REGRESSIONS

	2SLS	HTS
C	-6.482^{a} (-18.990)	-6.467^{a} (-20.634)
ln *PDW*	-0.370^{c} (-1.916)	-0.458^{a} (-3.509)
ln *AFQRAT*	-1.224^{c} (-1.778)	-0.025 (-0.075)
ln *WR*	1.590^{c} (1.879)	1.411^{b} (2.240)
ln *EMP*	-1.581^{d} (-1.455)	-1.601^{b} (-2.001)
ln *IDRTE*	0.017^{d} (1.591)	0.008 (0.845)
SP	0.144^{d} (1.587)	0.178^{a} (2.650)
SU	0.100 (1.096)	0.141^{b} (2.062)
AU	-0.018 (-0.227)	0.003 (0.051)

Note: *t*-ratios are in parentheses below the coefficients.
[a] Significant at better than the 1% level.
[b] Significant at better than the 5% level.
[c] Significant at better than the 10% level.
[d] Significant at better than the 15% level.

The really striking result is the turnaround in the sign of the relative wage coefficient in the enlistment equations from the OLS to the TSLS estimates. In the OLS enlistment equation result, the coefficient of relative wages is *negative* with a *t*-statistic of −2.616. As we have shown, this coefficient is capturing retention and quality changes as well as a change in wait. In the TSLS results, the coefficient of relative wages is *positive* with a *t*-statistic of 1.879 in the 2SLS version and 2.240 in the HTS version. These results support the theory that the OLS enlistment rate equation which includes the force level is essentially a demand equation. The wait and quality variables are endogenous to the system, and control of these variables permits partial identification of the enlistment supply curve.

V. Closing Remarks

The inventory model of the military manpower market indicates that the quality and the length of wait are important endogenous variables in a world where the military fixes its pay and the size of its force. The empirical results bear this out for the Air Force. The estimates of the wait and quality equations show that our theory organizes the data well.

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[10] We also ran the two stage estimates using the method suggested by Fair (1972). These estimates differed from the Hatanaka estimates by less than 1%.

[11] The force level variable has not been deflated by the population of 16–19-year-olds. When we utilize (*E*/population 16–19) instead of *E*, the estimated wage elasticity is identical to two places. In fact, all coefficients in the second stage results are within 1% of the reported values except for quality. The first stage results are qualitatively similar to those reported but, as expected, the constant term and the coefficient of force level are different although of the same sign and level of significance.

[12] The results presented above are qualitatively robust even in the face of the inclusion of a time trend. For example, the HTS estimate of the wage elasticity with a time trend included in both the first and second stages is 1.417 with a *t*-statistic of 1.543. The employment elasticity is −2.100 with a *t*-statistic of −2.295.

The force level is an important variable in the system, both theoretically and empirically. A fixed force level, quality taking system is restrained to the demand curve, with the latter largely reflecting retention experience or what we have called the supply of duration. Regressions of enlistments on the relative wage which control for the force level give negative elasticities because observed enlistments fall along the demand curve.[13] Equations which control for wait and quality partially identify the enlistment supply curve, but still underestimate true supply because some demand restraint, due to retention change, limits the estimated system response.[14] Our results indicate that the relative wage elasticity of enlistments at constant quality and wait is about 1.41 even with the partial limitation imposed by demand. Removing the bias in the supply elasticity estimate by adjusting for the reduced demand for enlistments which results from higher wages yields an estimate of the true supply elasticity of around 1.92.[15]

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[13] From (15) we have that for a constant force level

$$\epsilon_{am} = -\epsilon_{Dm}.$$

Our estimate of the constant force level enlistment supply elasticity is the wage coefficient in the OLS regression of the enlistment rate if the Air Force is assumed to take the duration of employment as exogenously determined. This estimate is −0.509. Interestingly, $-\epsilon_{am}$ is an estimate of the retention supply so retention elasticity is 0.509.

[14] See the discussion of equation (17).

[15] From (18) we have that

$$\epsilon_{am}|\theta,L,D = \epsilon_{am}|\theta,L - \epsilon_{am}|_E$$

where the first term on the right hand side is the two stage estimate of the wage elasticity and the second term is the negative of the OLS estimate of the wage elasticity of enlistments.

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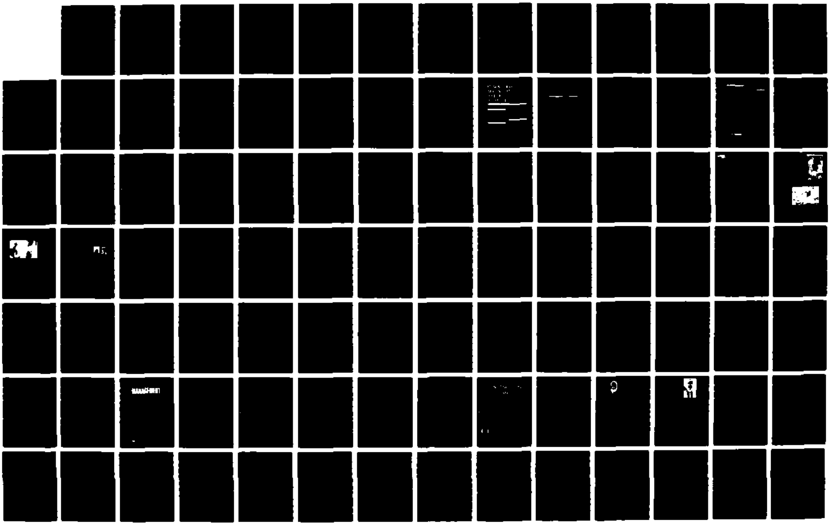

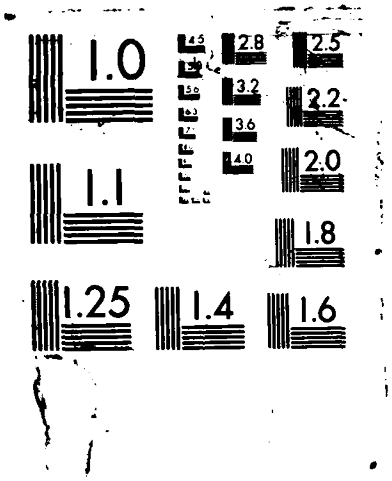
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PANEL 2 TOPIC: FOSTERING INNOVATION: IMPLICATIONS FOR POLICY AND ORGANIZATION

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PANEL 2

FOSTERING INNOVATION: IMPLICATIONS FOR POLICY AND ORGANIZATION

I. THE ISSUES:

- Managing both existing business and innovation concurrently
- Recognizing the tendency of "the system" to stifle innovation by punishing failure
- Determining how to implement the "good ideas" once they have been articulated
- Determining how to encourage innovation from within the organization, how to encourage innovation from all employees in all operations -- including the daily operations
- Preventing the failure of innovation through bureaucratic sabotage, even if the innovation has top-level support
- Determining how an innovator can be identified
- Deciding how to institutionalize innovation in the face of external scrutiny
- Evaluating whether the innovation worked/is working

II. RECOMMENDED ACTIONS:

- Massive participation at all levels, i.e., quality circles, task forces, study teams, etc.
- Increased commitment to communication and training
  - Needed to help people understand the need for innovation
  - Management has to be trained in how to be innovative as well as in how to encourage innovativeness in subordinates -- attitudes must be changed
- Modified human resource system functions such as selection, appraisal, development and reward to encourage innovation rather than conformity
- Minimize hierarchy; job descriptions that put fences around people should be avoided

-- Organization structure should be simplified and the number of levels reduced

  --- The private sector has streamlined organizations by not replacing some levels, expanding jobs, making work more challenging

- o Validated appraisal process

  --- Peer and subordinate appraisals can be valid and useful and have been utilized in the private sector

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- o Schedule meetings of key private and public sector human resources people to maintain dialogue
- o Develop extensive exchange programs between public sector and private sector
- o Use the outplacement programs adopted by the private sector to help military people make the transition to civilian life
- o Match peoples' skills with companies' requirements as they leave the military
- o Invite top military human resources executives to the meetings of top private sector executives
- o Continue meetings such as this National Forum

ISSUE PAPER

PANEL 2 - FOSTERING INNOVATION: IMPLICATIONS FOR POLICY AND ORGANIZATION

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Delin, Gustaf, "Innovation Management Needs Analysis," Arthur Young and Company, 1985, pp. 1-5.

FOSTERING INNOVATION: IMPLICATIONS FOR POLICY AND ORGANIZATION

I assume that there is general agreement that innovation is important and desirable. Therefore, I will not use scarce space to present reasons in favor thereof. Suffice it to quote from Peter Drucker's latest book, *Innovation and Entrepreneurship*: "Today's businesses, especially the large ones, simply will not survive in this period of rapid change and innovation unless they acquire entrepreneurial competence." I believe that it is only a matter of time before the same could be said about any "large" organization, and not only in business.

When there is disagreement -- which happens on occasion -- the most important reason seems to be definitional. What is innovation? Let me give you a few slightly different ways to answer that question:

1. Innovation is the product of an experimenting nature, the willingness to shoulder risk, an ingrained habit of listening, and vision about real customer needs. (*The Winning Performance*, 1968)
2. Innovation is "ideas implemented profitably." (Arthur Young and Company Innovation Management Group)
3. Innovation is a way of life: Not only new products or a new technology, but also process innovations (new ways of making something) and new marketing and distribution methods; financial innovations; management innovations; structural or strategic innovations; changing the basis of competition and the segmentation or natural boundaries of industry. (Excerpts from a study by Arthur D. Little, London)

I personally prefer "generous" definitions. However you may want to define innovation, the same basic "laws" apply, the same "obstacles" are relevant, and the same kind of "remedies" are applicable.

I will focus on the role of the individual and the team of individuals in innovation. This is by no means to underestimate the importance of organizational and structural aspects. But when all is said and done, innovation involves people and is highly dependent on people's abilities. I venture the opinion that this fact has been underestimated for some time in favor of an exaggerated "rational" engineering approach to innovation.

This should also be considered as both positive and hopeful from a Human Resource point of view. It emphasizes human beings as the critical resource; it offers opportunities for people's growth in combination with business growth; and it indicates a strategic importance for Human Resource departments. It should even lead to more practical Human Resource applications in day-to-day management in the future. Currently, with a few exceptions, there is either a lack of understanding of Human Resource principles, or at best, only lip service is paid to them.

ENTREPRENEURIAL QUALITIES

For an idea to become realized, applied, and utilized in practice, it must go through a process of experiments, trial and error, and failures. Risks have to be taken and there is more or less (often more) heavy resistance. "By definition, innovation means breaking the rules and overturning the conventional wisdom. It is the opposite of imitation and 'business-as-usual.'" (*The Winning Performance*)

Qualities such as dedication, passion, vision, courage, creativity, perservance, and an action orientation are needed to get from idea to successful implementation. All of these qualities are human qualities. They are the brand marks of entrepreneurs.

Not surprisingly, entrepreneurs and entrepreneurial qualities are considered pivotal when venture capitalists evaluate new business opportunities. Some suggest that between 65 and 90 percent of the outcome of a new venture depends on the person(s) involved. So entrepreneurial behavior is key in the innovative process, regardless of the level of innovation, whether sophisticated high-tech or a more mundane innovative application in day-to-day practices. Entrepreneurism in corporations is today's big theme in management.

EXISTING BUSINESS vs INNOVATION MANAGEMENT

It is a fact that entrepreneurial behavior is in short supply. Very few corporations/organizations can muster as much as they need, but this is not primarily caused by a lack of talent. The main reason for the shortcoming is that corporations are organized and "programmed" for "existing business," not for innovation. The "life style" in corporations is basically such that it stifles -- squeezes and suppresses -- entrepreneurial attitudes and behavior, and consequently, innovation.

The problem is not simply cultural, nor is it management's attitude. It's also not that new opportunities which meet important criteria don't exist. The problem arises when the "market environment" dictates changes in the corporation to stimulate innovation (however you define it). The management styles required in the new situation are different from and often in conflict with traditional management styles and employee attitudes. As long as this conflict exists, tradition will win out because it is essential that you take good care of today's business if you want to have a future.

THE DIFFERENCE IS "SPIRIT"

What normally happens is that you establish new budgets for exploratory business and marketing programs. You reorganize with corporate business development organizations and establish new business units at division levels. You implement idea-generating sessions, establish screening criteria, and form new venture teams. You even create new policies for incentives and rewards. Then you sit back and wait for the 'new' to emerge -- and very little happens.

This may be an exaggerated picture. It is true that some corporations are more successful than others; but the difference between success and failure is due to differences in management styles and the attitudes/behavior of people who make the 'new' happen. There is an attitude that has saturated these successful companies at almost every level in the organization. I am calling it "The Intrapreneurial Attitude." And it coexists with traditional management styles and techniques that are requirements for well-managed businesses.

Successful innovation on all levels is a question of new spirit -- entrepreneurial spirit. There is normally much in its way: The "wrong" behaviors, programmed into people (on all corporate levels); the "wrong" attitudes, both with managers and employees; cumbersome organizational structures that support and reinforce "un-entrepreneurial" behavior; excessive management layers that dilute responsibility and suffocate individual energy and spirit; prohibitive policies that lead to red tape, bureaucracy, and disincentives to initiative and risk-taking.

Attitudes and behavior are pivotal. Cumbersome organizational structures, excessive management levels, and prohibitive policies and regulations can be overcome if the right attitudes and behaviors are there. Two companies that on the surface seem to have all the "right" things in place may differ widely; one has developed "the spirit" and the other has not.

PEOPLE'S PERCEPTIONS AND BEHAVIORS DETERMINE INNOVATION SUCCESS

Successful innovation is very much a question of changing perceptions and behavior. People in companies -- managers, supervisors, and employees alike -- must see that they have certain roles in carrying out the "existing" business and very different roles in getting the "new" to happen in innovation. They must understand the different rules and principles that apply to these opposite tasks. They must train themselves to carry out the roles that are needed for more successful innovation to happen.

It is a question, basically, of "reprogramming." For years and even decades, people have been programmed in "operational" thinking, which is absolutely necessary and purposeful, but which has had a very disruptive side effect. The attention of whole organizations has come to focus on doing the same thing cheaper, often blinding them to innovation opportunities. "More of the same can become too much of the same." (*The Winning Performance*)

The question often raised is: Should you start the reprogramming process with a particular key group in the organization? My colleagues and I chose to start with self-selected role models whom we called "intrapreneurs" (internal entrepreneurs). These are the "doers," we argued, and they will show the rest of the organization innovative behavior, how to do new things, how to build new businesses, and how to innovate. It worked fairly well, but not optimally (there was a lot of unnecessary bloodshed and wasted energy), and we very soon focused on simultaneous "training" of managers. Managers are enormously powerful as role models; they are believed on the basis of their behavior, not on lip service. If they do not allow space for innovation, if they penalize entrepreneurial behavior, they can cause devastating effects on innovative efforts.

At times, the need for "training" people and organizations (educating and facilitating change) in entrepreneurial behavior is questioned. Our basic philosophy is:

1. Today's corporations/organizations need large numbers of individuals and groups to test and implement "new things" -- to innovate.

2. Fostering and managing/leading entrepreneurial people has therefore become a primary role and concern for managers.

3. Entrepreneurism can be "taught" and so can entrepreneurial management; a key factor in innovation is gaining time, and therefore gaining time is an excellent argument for purposeful entrepreneurial training.

4. There are few things harder to change than attitudes and behavior.

Among the purposes for training managers to become "entrepreneurial leaders" are to:

1. Heighten levels of awareness of the need for innovation and change;

2. Demonstrate a clear commitment to and direction for the innovative effort;

3. Strengthen a "people orientation" as opposed to "ideas orientation" (people with commitment are an untapped resource);

4. Handle conflict between managing existing business and managing innovation;

5. "Live the innovation message" -- not just pay it lip service.

Among the purposes for training "intrapreneurs" are to:

1. Take "intelligent" risks;

2. Design experiments, utilizing mistakes and failures as learning tools;

3. Develop individual self-image and high tolerance for ambiguity;

4. Develop "doer" attitudes and peak performance capability;

5. Develop certain business skills and know-how.

SOME IMPLICATIONS FOR HUMAN RESOURCE DEVELOPMENT (HRD)

The implications for Human Resource Development (HRD) are (from a non-Human Resource specialist's view) far-reaching:

1. There will be an incrasing demand on personnel managers to contribute to business results.

2. Personnel administration will decrease in importance, and developing human resource strategies (not least for innovation) will increase in importance.

3. Human Resource departments will have to influence and manage organizational "cultural change" for innovation on a basis compatible with top management.

4. Human Resource departments will have to take much of the responsibility for translating "innovation culture" -- changing philosophy into action -- at operating levels.

Briefly stated, there is a dramatic focus on the role (already performed by some outstanding Human Resource people) of instilling the need for innovation throughout the organization, to encourage and train/teach entrepreneurial attitudes and behavior, and to set the needed example.

ForeSight Institute

The following is an "unstructured checklist" or "guidelines" for the creation of a corporate environment that is conducive to innovation and to new business development.

Reading through a number of articles* and adding a few of the "musts" that we have noticed in our own professional practice, we suddenly found ourselves making a list of points that seem to be important to pay attention to if you want to improve on/create an entrepreneurial and innovative climate in your organization.

You may also use this checklist to measure your own organization by using a scale from 25 to 125, where 25 is low and 100 is excellent today. The 125 score is there for you to indicate if, in the future, there will be a demand for even greater excellence.

Select 10 to 15 points from the total number of guidelines which you feel are representative of your organization's present environment.

This exercise will not give you any "right" answers, but it will certainly give you an indication and, it is hoped, a number of good ideas about what to start *"doing"* something about.

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* The authors studied are: Brian Quinn, Modesto Maidique, and Donald Schon, all well-known authorities and students of innovation and entrepreneurism in the United States.

UNSTRUCTURED CHECKLIST - A GUIDELINE

An Innovative Environment Should:	25	50	75	100	125
1. Permit the match-up of personalities, opportunities and incentives.					
2. Free the innovator to interact flexibly with other experts and users without intervening bureaucracies.					
3. Free the innovator from formal plans or PERT charts of progress .					
4. Tolerate the essential chaos of development; progress in development typically comes in spurts among unforeseen delays and setbacks.					
5. Avoid waste of time explaining progress or lack of progress.					
6. Avoid creating/sustaining false expectations concerning the speed and orderliness of progress.					
7. Encourage use of sweat capital instead of dollars for materials and equipment.					
8. Avoid formal inquiries on failures; do not make failures visible.					
9. Discourage detailed and costly market estimates as long as possible (at an early stage they are mostly inaccurate and perhaps also misleading).					
10. Encourage making the inevitable mistakes small, fast and cheap.					

Scale - 25 represents lowest score - 125 highest

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	150
11. Satisfy personal desires for achievement, recognition and money.					
12. Create several (access to several) financial sources.					
13. Trust people much more than numbers.					
14. Understand that innovation/creating new business by definition is ambiguous (and that therefore, "normal" planning procedures do not apply).					
15. Encourage a large number of contending projects.					
16. Encourage everything that gets the user/customer/client involved EARLY.					
17. Discourage focussing on promotion in a vertical organization as a first option - MAKE HEROES OF PEOPLE WITH INITIATIVE AND PERFORMANCE.					
18. Avoid charging a NBV (New Business Venture) with its full personnel, materials, overhead, and back-up costs.					
19. Avoid high costs to avoid "political exposure" of the project.					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
20. Teach and preach that parallel, multiple approaches to the same goal are "saving costs", "creating options", increasing probability for success.					
21. Avoid formal procedures to make up drawings, get model shop work, obtain equipment, or utilize technicians in order to shorten time between experiments, save cost for each experiment, and increase productivity.					
22. Creating new business takes a long time - spread the fact that venture capitalists (the experts) usually have to "wait for at least four years before they "know" if a new project will succeed or not (J-curve)."					
23. Spread the fact that innovations normally take a long time from first discovery to profitability.					
24. Avoid analyzing innovation projects by standard financial techniques; YOU WOULDN'T SERIOUSLY JUDGE A NEW BORN BABY BY COLLEGE STANDARDS - WOULD YOU?					
25. Encourage and develop long time horizons.					
26. Penalize managers who under-invest in crucial non-measurable areas, like technological innovation.					
27. Have managers stay long enough in a position to increase the likelihood of having him experience the results of his under-investment taking place.					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
28. Reward a manager who is right in his NBV investments "one in twenty ."					
29. Make a CORPORATE HERO of a manager who is right in his NBV investments "better than one in twenty."					
30. Avoid staffing venture teams with professional managers/people balanced as to skills rather than to deep-seated personal commitment (COMMITMENT - NOT COMMITTEE!)					
31. Avoid describing a venture that does not follow plan as a failure.					
32. Clearly define the need that the NBV is intended to fulfill.					
33. Encourage interface at all levels of organizations; place development groups in physical proximity to research, producing, marketing groups.					
34. Remove non-performers ("ought-to-people") from NBV's.					
35. Develop intrapreneurs, based on NBV-policy with well defined goals and resources.					
36. Begin major innovative programs EARLY - when product lines appear solidly positioned for several years into the future (Use multiple approaches).					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
37. Reward intrapreneurs and champions/protectors who make extraordinary contributions - and fail (the organization is learning a lot!)					
38. Search for and encourage committed champions/ protectors/mentors.					
39. Encourage different groups to develop competing proposals .					
40. Encourage top executives to take risks.					
41. Accept the need for and encourage the willingness to absorb the fiscal drains associated with significant developments .					
42. Encourage top executives to maintain close contact with both the venture and its potential customers.					
43. Define clear objectives for each NBV .					
44. Make sure that those who are on the NBV identify with the objectives and consider them as genuinely worthwhile.					
45. Avoid having only goals like "making more profit" .."minimum 10.2 percent on equity", etc. They are rarely "electrifying. "					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
46. Encourage challenging...inspiring goals/visions "(becoming the best domestic airline in the world)".					
47. Substitute incentives for sanctions.					
48. Avoid searching for the one all-encompassing solution/substitute/business (Multiple competing approaches again!) "Big Bang.					
49. Encourage having potential users guide NBV's as early as possible.					
50. Base the intra-venturing effort on a deep and shared commitment to intra-venturing as a growth option with agreed upon goals and resources.					
51. Back the commitment (vision/goal) with a large number of specific practices that stimulate invention and entrepreneurship throught the entire organization.					
52. Encourage control that ALL of the important goals (like innovation and NBV's) of the corporation are served, not just current profitability.					
53. Allow a sufficient number of projects and a long enough lead time for the "one in twenty" success ratio to have effect.					
54. Teach and Preach: There are no painless panaceas for "instant innovativeness." Shun quick fixes.					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
55. Spread the insight that there is plenty of reason to suppose that individual talents count for a good deal more than the firm as an organization.					
56. Spread the insight that in the large firm as well as in the foundling enterprise, the entrepreneur is the central figure in successful innovation.					
57. Require top management participation in the entrepreneurial network.					
58. Emphasize now and again that a new idea either finds a "champion" or dies; a "champion is a person - not a committee!					
59. Always encourage direct connection between the product designers and the eventual product users .					
60. Encourage "sponsors/mentors" who circumvent "conservative" barriers (most often consisting of middle managment).					
61. Tolerate - encourage "sponsors" to operate outside the conventional chain of command .					
62. Encourage direct and informal communication and reliance on informal information networks.					
63. Insist on top level attention to NBV's.					
64. Allow - encourage establishing NBV's in separate units to protect NBV from parent company's procedures and infrastructure.					

UNSTRUCTURED CHECKLIST - A GUIDELINE

	25	50	75	100	125
65. Encourage the constant fluidness, slack and disorder (flexibility, openness and redundancy) that are so necessary in the highly innovative initial stages of development.					
66. Promote informality in communications.					
67. Have top managers personally involved in the entrepreneurial networks; only they can make decisions, provide the resources, and absorb the risks that are inevitable in (radical) change.					

INNOVATION MANAGEMENT NEEDS ANALYSIS©

In the majority of companies, the issue is not *whether* to innovate but *what* innovations to pursue and *how* to manage innovation more effectively. This questionnaire will shed light on innovation management within your own company. Its 44 statements provide a tour of the innovation issues facing management today. As you read them through and note down your responses, they may well touch off new thoughts about managing change through managing innovation.

What Is Innovation?

Innovation means different things to different people. The chief executive officer may define it broadly, as *the strategic and profitable management of change.* To others, it means *new product ideas,* or *new manufacturing processes* that lower delivered costs. Still others think of innovation in terms of developmental stages: *idea, implementation,* and *diffusion* throughout the marketplace. The word may also refer not just to innovations produced at one's own workplace but to innovations produced elsewhere that can be adapted to the needs of the company or business unit. Many executives have *administrative and organizational change* uppermost in their minds; they appreciate the need for innovative thinking and implementation in every area, from human resources management to transportation. These are all kinds of innovation—and all require special planning, implementation and control.

How to Use This Innovation Management Needs Analysis©

Please respond to the 44 statements in the questionnaire by marking the appropriate box. YOUR RESPONSE SHOULD BE BASED ONLY UPON YOUR PERCEPTION OF YOUR OWN COMPANY/BUSINESS UNIT. If you *strongly agree* with the statement, check the first box; if you *tend to agree,* check the second; if you *tend to disagree,* check the third; if you *strongly disagree,* check the last box.

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ARTHUR YOUNG
A MEMBER OF ARTHUR YOUNG INTERNATIONAL

THE INSTITUTE FOR INNOVATION

The ForeSight Group

The boxes are defined as follows:

A	TA	TD	D
AGREE	TEND TO AGREE	TEND TO DISAGREE	DISAGREE

Each of the 44 statements highlights an aspect of corporate innovation–current performance, goals, patterns of implementation, barriers, culture, etc. They are arranged in terms of the Six Sequential Steps of Innovation Management, which we call ASPIRE.©

*A*nalysis
*S*trategy
*P*lanning
*I*mplementation, Motivation & Control
*R*eview of Results
*E*valuation & Plan Modification

Questions

Analysis

1 In our firm, we tend to define innovation traditionally, i.e., primarily in terms of new products, new services, or new processes.

A TA TD D

2 While we are proud of our success in innovation, we do *not* effectively analyze our innovation failures.

A TA TD D

3 We could be more objective in assessing our strengths and weaknesses in relation to the skills and organizational structure needed to manage innovation successfully.

A TA TD D

4 We have reasonably good managerial processes to foster innovation. On the other hand, our "culture" or climate tends to discourage innovation.

A TA TD D

5 At senior or middle management levels in our company/business unit, there are barriers to innovation such as: fear of inadequate return on investment; fear of putting one's job in jeopardy; fear of project failure; foot-dragging; Not Invented Here (NIH).

A TA TD D

6 Many of our managers are excessively risk-averse. We need to find ways to encourage, train, and reward calculated risk-takers.

A TA TD D

7 While we regularly discuss the need for more innovation, we should be more precise in our innovation needs analysis and set specific innovation objectives for each operating unit.

A TA TD D

8 It is widely acknowledged that successful innovation often grows out of systematized market and user research. However, systems for accomplishing this in our company have significant shortcomings.

A TA TD D

9 In general, our major competition tends to be more innovative than we are.

A TA TD D

Strategy

10 Due to our concern for short-term performance in the last few years, innovation has received a lower priority.

A TA TD D

11 We have only recently given higher priority to the development and management of innovation.

A TA TD D

12 Our company/business unit is not as successful as we wish it to be in innovation management because we do not give top priority to this challenging task.

A TA TD D

13 As in most companies, senior management in our firm favors more innovation; our problem is to turn *talk* about innovation into effective *action*.

A TA TD D

14 While there exists a great deal of information on *what* to do in order to innovate more effectively, the challenge that we face is not *what* to do but *how* to do it.*

A TA TD D

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*See *Twelve Requirements for Managing Innovation,*" a publication of Arthur Young and The Institute For Innovation (copies available on request). tm. The Institute For Innovation

15 When we analyze strategies for more effective innovation, we tend to view ourselves as a producer of innovation, rather than also as a user of innovation generated either outside the company or internally by our associates.

A TA TD D

16 We give importance to product/service/process innovation, but we seldom emphasize innovation in administrative and operational skills and activities (human resources, finance, transportation, distribution, etc.).

A TA TD D

17 We tend to under-utilize or poorly coordinate the Eight Avenues to product/service innovation (i.e., traditional R&D, university R&D, new product development, internal entrepreneurship/venturing, venture capital, technology transfer, entrepreneurial acquisitions, specialized joint ventures).*

A TA TD D

18 We tend *not* to use investments in internal or external venture capital pools as valuable "windows-on-the-world" of new technology, as a source of tactical acquisitions, or for stimulus and learning.

A TA TD D

19 Our company does *not* believe that stockholders are better served in the long run by companies that focus on the increasingly popular concept of "shareholder value." Rather, we apply traditional short-term criteria focused on quarterly performance.

A TA TD D

Planning

20 While we have stressed strategic planning for some years, we do not have a separate, comprehensive, and written strategy for corporate/business unit innovation management.

A TA TD D

21 In our company, there tend to be inadequate cross-management relationships and communication among the Eight Innovation Avenues (see Question 17 for the full list of Avenues). For the most part, these areas report to entirely different functions, with little coordination of objectives.

A TA TD D

22 While we regularly review our overall organization and compensation structures, we tend *not* to ask ourselves how effectively our decisions in these areas encourage and implement innovation.

A TA TD D

23 We place ourselves at a managerial disadvantage by failing to distinguish clearly between needs (organization, culture, process) connected with the creation of innovation *versus* needs at the implementation stage of innovation.

A TA TD D

24 In order to increase our rate of innovation, we need to begin to balance short-term earnings requirements with a longer-term strategic perspective.

A TA TD D

Implementation, Motivation, and Control

25 Our greatest innovation need is *not* to develop still more ideas, products, processes, etc., but rather to move good ideas more efficiently from the drawing board to the marketplace. We tend to be weaker in implementation than in generating innovative ideas.

A TA TD D

26 Our firm would innovate more effectively if we had clear innovation guidelines, specific objectives, and sharper focus on all of our innovation activities.

A TA TD D

27 In our line and staff units, we may have more disincentives than incentives for innovation.

A TA TD D

28 To spur innovation, we must find ways and means to encourage prudent risk-taking.

A TA TD D

29 Recently publicized ideas about creating an "entrepreneurial" corporate environment are stimulating, but I doubt that we could move significantly in that direction.

A TA TD D

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*See *Innovation: The Agenda for American Business. A Study of Innovation Management Practices Across 400 U.S. Companies*, published in 1985 by Arthur Young and The Institute For Innovation (available on request).

30 We appreciate that two of the hallmarks of the successful individual entrepreneur are flexibility and perseverance in the face of adversity. However, a large organization such as ours, with many decision-makers and decision-influencers, is unlikely to manifest these traits when an innovative project hits a major obstacle or a succession of snags.

A TA TD D

31 We are aware of data proving that inadequate market research or customer needs analysis is the major contributor to new product failure. We could be more effective in this area.

A TA TD D

32 While we have established sound programs for management training and development, we do little training in innovation management, entrepreneurial leadership, etc.

A TA TD D

33 Effective innovation management requires close coordination among senior management, manufacturing, engineering, operations, R&D, finance, and marketing.

A TA TD D

34 Senior management should devote more time to innovation strategy and overall innovation management.

A TA TD D

35 Over a typical period of 3 or 4 years, we experience significant changes in senior management. For this reason among others, it is not easy for us to provide continuity of management interest and commitment to specific innovative projects that may take 3 to 7 years or more to mature.

A TA TD D

Review of Results

36 The measurement and monitoring of innovation often seems an abstract task unsuited to our standard methods of financial and performance review.

A TA TD D

37 Measurement of creativity in its early stages is virtually impossible for us.

A TA TD D

38 We would innovate more effectively if we could work out a better, more accurate system for tracking innovation performance on specific projects.

A TA TD D

39 In our firm, product innovations generally take 3 to 7 years to move from drawing board to profit center, while service innovations generally require 1 to 3 years. During these lengthy incubation periods, we need to find additional ways to track and understand progress or delays in a systematic, effective, and objective manner.

A TA TD D

Evaluation and Plan Modification

40 We have a variety of financial tests (ROI, ROE, ROA, IRR, DCF and others) that we apply in evaluating alternative capital investments, including innovation projects.

A TA TD D

41 We generally use the *same* financial analysis systems to evaluate both innovative and traditional proposals and projects.

A TA TD D

42 When an innovative project fails, its "champion" is more than likely to be penalized sooner or later in terms of promotion and compensation.

A TA TD D

43 Continuity of management commitment could be improved in our company/business unit by regular project reviews utilizing proven innovation tracking systems.

A TA TD D

44 Since innovation case histories point to a group of recurrent success/failure factors*, our company/business unit should evaluate itself on those factors.

A TA TD D

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*For further information on the "Twenty Five Success/Failure Factors," see ***Innovation: The Next Wave***, Issue No. 5, a newsletter published by Arthur Young and The Institute For Innovation (available on request).

Computing and Interpreting Your Score

To get your innovation score, **add together the total of "agrees" and "tend to agrees"** ***only,*** and match that score with the evaluations below. Higher scores identify companies that need to strengthen their innovation management; lower scores indicate companies with substantial skills.

Evaluations

Score of 35 to 44	A large number of companies fall into this group. Characteristically, these companies may be committed to innovation but strongly lacking in the organization, culture, and process necessary for effective innovation management.
Score of 26 to 34	The majority of U.S. companies fall into this group. These companies want to be more innovative but need to modify systems, processes, or behaviors in key areas to reach their full innovation potential.
Score of 11 to 25	This interesting group of companies usually has given priority to innovation management for years. Typically, they have achieved innovation successes of significant magnitude. However, to reach their ambitious innovation goals, they need to modify their innovation organization, culture, or process in some major respect.
Score of 10 or less	A very small number of U.S. companies fall into this exclusive group. They tend to manage innovation efficiently and will remain successful if they continue to be both flexible and consistent.

Why Not Obtain Your Associates' Views?

We would be happy to furnish additional copies of this document so that you can obtain and compare the views of colleagues. If your company is like many others, you will find significant and revealing differences of view both within and across corporate functions.

How to Compare Your Evaluation, Confidentially, with Those of Other U.S. Companies

If you are curious to know how your score compares with those of other companies in your industry and across the country—or if you wish further interpretation—forward to us a copy of your INNOVATION MANAGEMENT NEEDS ANALYSIS. A senior innovation management consultant will review it and reply with a brief, confidential analysis of its implications.

We will also be happy to discuss any other points of interest and answer your questions. Write or call:

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PANEL 3 TOPIC: HUMAN RESOURCES CHALLENGES OF THE 1990'S

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PANEL 3 REPORT

HUMAN RESOURCES CHALLENGES OF THE 1990'S

I. THE ISSUES:

- Using human resources effectively is the biggest challenge
  - Individual desires must play important role in utilization
  - Private and public sector demands must be met
- Accept change
  - Rapid societal and scientific changes will cause frequent career switches
  - View retraining in a new light
    - A reward (and not a threat) occurring throughout a lifetime
    - A natural (culturally approved), career-broadening step leading to expansion of knowledge
- Accept worker displacement as natural part of career cycle
  - Rapid obsolescence of technology will continue
  - Substitution of existing methods by new preferred ones
  - Even top echelon members will face education expansion if they are to be retained
  - Changes in technology carry human price tags

II. RECOMMENDED ACTIONS:

- Assess implication of increased retirement fund portability and pension funding as a way to increase worker mobility.
- Consider the potential of a National Educational Trust (NET) funded along the lines of Social Security.
  - For workers forced to change jobs, who need assistance to retrain, deposit money in the NET

  - -- In government, study impacts of current and proposed legislative actions
    - --- though some analysis is done, there exists a structural analytical vacuum

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- o Use "Networking by Rolodex"
  - -- Personal contact in the informal setting best promotes strategic management aims
- o Improve and expand existing databases containing job skill information for more effective training and placement of skilled workers
  - -- Industry and Defense require many of the same types of skill and can complement one another
- o Encourage overt and ethical contact between private sector and Defense
  - -- Dispel suspicions of backroom "wheeling and dealing"
- o Reduce policy and regulatory restrictions (e.g., hiring of former military and civilian members)
  - -- Adversarial atmosphere exists, engendered by constant and painful audits

ISSUE PAPER

PANEL 3 - HUMAN RESOURCE CHALLENGES IN THE 1990'S

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Prepared for the

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Related Background Papers

Weiner, Edith and Arnold Brown, "Issues for the 1990s," *The Futurist*, March-April 1986, pp. 9-12, The World Futurist Society, Bethesda, Maryland.

Wilkinson, George, "What We Did and How We Did It," United Way of America, Alexandria, Virginia, pp. 3-11.

HUMAN RESOURCES CHALLENGES

IN THE 1990S

Let's be clear in using the modern term "human resources" that we are really talking about people -- beings like ourselves with hopes and fears, strengths and weaknesses, and whole lives, one aspect of which includes work. We should also note that in parallel with "challenges" we are concerned with opportunities. The nineties will present problems and unknowns, but they also will present positive options. None of us can predict exactly what the nineties will be like, but trends and forces currently in motion can give us ever clear views of unfolding alternatives. Nor do we have to wait for fate to overwhelm us. At least in part, we can shape our future and prepare for (or attempt to avoid) those situations beyond our control. Since 1990 is less than four years away, our close-in options are already tightly constrained. But we have a decade of leverage to influence and prepare for the late nineties. And that is the period when we can do the most to deal with the next millennium.

In contrast to the more functional, specific topics in the other nine panels, our focus is broad, long range and more externally oriented. This paper, therefore, starts with an overview of the coming decade plus. It then focuses on the environments in which human resources (people) will work with particular emphasis on those within public and private defense related activities. It lastly zooms in on the people themselves as leaders, managers, professionals and other workers.

SOME ASSUMPTIONS

As stated above, we cannot predict what the future will be, but we have many ideas as to some of the alternatives that are both possible and likely. A first step in exercising foresight is to set aside those situations which we cannot influence or which are so overwhelming as to threaten anything resembling normal operations of the Defense establishment. Nuclear war and winter, perhaps even a general conventional war, a pandemic, uncontrolled global terrorism (big stuff like nuclear blackmail), economic collapse, a major natural disaster or climate shift and similar doomsday scenarios are left for special contingency, or even "survival" planning. So are dramatic positive events such as a new U. S. constitution, "real" global peace, a united North American nation of the U. S., Canada, Mexico, and ....

Implicit in our futures thinking are a set of assumptions common to all foreseeable alternatives impacting Defense and to where Defense can shape its own direction. We assume that:

- there will be (relative) world peace.
- free, democratic constitutional government and the rule of law (in the West will continue.
- the global population will grow for at least two decades (reaching perhaps 6.5 billion by 2000).
- global interdependence of all nations and peoples will increase -- economically, environmentally, and for food, energy, materials and mutual defense -- and the "Pacific Rim" will emerge as the focus of action.
- market and non-market economies will compete in the global marketplace amidst constant political change in both the rules and power balances.
- the decade will be an information era, building on the earlier industrial and agricultural bases (the social and psychological eras will follow in the next century or two).

- industry, individual entrepreneurial, government, academic and voluntary sector roles will ever more strongly overlap and intermingle.
- values and lifestyles will continue to change with increasing emphasis on the rights (and maybe the responsibilities) of individuals.
- surprises will occur; from chance events, the acts of key individuals, and from technology.

THE NINETIES AND BEYOND

It is popular in futures speculation to draft several parallel scenarios -- an array of logically consistent "stories" based on varying assumptions. Often a trio with names like "more of the same," "optimistic," and "pessimistic" is chosen. More expressive language is used in sets like "tomorrow as today with fewer (or more) problems," "the technological fix," "lower energy/higher labor intensiveness," "authoritarian solutions," or "the emerging transformation." Examination of literally hundreds of these scenarios has provided us with considerable insight, a wide range of alternatives, some amusement, and occasional anxiety. Many authors and institutions feel strongly that selected scenarios (usually their own) are descriptive of the most likely future. For example, the late Herman Kahn and Julian Simon see science, technology and the human mind and spirit as carrying us forward to a bigger and better extension of the present. Alvin Toffler of Future Shock fame sees the "demassification" of information and the union of producer and consumer ("prosumer") as key elements in a more "participatory democracy." The Global One Hundred, a self selected group of business and banking leaders from around the world, issued a report in 1983 entitled Toward an Unlimited Future, followed by a "Call to Action." These leaders feel that global society can cure its present ills and create a sustainable and equitable life for all mankind -- if only we can change certain attitudes and conditions that favor "free enterprise." "Governor Doomsday" Richard Lamm of Colorado in his readable book

Megatraumas paints some dire pictures of U.S. futures if we continue business-as-usual. But through intelligent planning and prudent action, Lamm shows how we might avoid the projected disasters. Over a decade of reports of the Club of Rome make similar points at the global level. We must act now, if we are to deal with "Le Global Problematique." This is that set of huge, interrelated problems, all of which must be dealt with together if humankind are to survive on earth. The problems include: population, food, water, environmental pollution, energy, materials, the global economy, technology and not least, peacekeeping. Brain-mind researcher Marilyn Ferguson (Aquarian Conspiracy) suggests we are already in a major "personal and social transformation" of ideas and values nationally and globally shared through "networking." Successful author John Naisbitt (Megatrends) supplies us both with hope, common sense observations on current trends, and enriches our vocabulary with terms like "hi-tech hi-touch." He and others like forecaster Marvin Cetron (Encounters With The Future) and sociologist Amatai Etzioni in his An Immodest Agenda: Rebuilding America Before the Twenty-First Century, give us a steady supply of new analyses, syntheses, projections, and hope and despair exhortations.

With respect to management, both general and of human resources, scholarly, popular and speculative books, articles, seminars, tapes, and more recently tee-shirts and bumper stickers abound. Arcane phrases like "skunk works," "MBWA" (management by walking around), "networking" and "participative" are fashionable with the in-groups. Titles like Vanguard Management, Leaders, the Knowledge Executive, the M-Form Society, the One-Minute Manager, the New Achievers, Super Managing and dozens more, compete for buyers and attention.

A variety of core ideas is embedded in all of this (mostly) constructive ferment. Leaders are hard to find, governance is hard to perform, and management is hard to change. But it is beginning to change and must change for the future. Hierarchical and bureaucratic structures are getting flatter, more human, more flexible, and more open; and it is likely that these trends will continue. The ever increasing numbers, complexity, change of pace, etc. of institutions in all sectors highlight the need for leaders, managers and skilled and knowledgeable workers. It is no longer sufficient (if it ever was) to learn to perform those functions in school. Continuous learning and re-learning must be an integral part of all jobs. Learning to cope only with today may be both inapplicable and counter-productive to performing in future environments. Learning how to exercise foresight is essential. We will all have to take larger risks, and maybe we can change ourselves to view risktaking as learning experiences, not just as failures or successes. Most futurists argue that we must become a "learning society" if even the present quality of life is to be preserved.

EXTERNAL CHALLENGES AND OPPORTUNITIES

No one needs a futurist to realize that competition for funds will be a (maybe the) major factor in Defense management. Defense must compete with other domestic and even global demands, and internal mission and functional demands will similarly be in constant conflict. The processes and health of the global economy can exacerbate or ease the domestic setting, as will resolution of the potentially explosive developing-nation debt issue. General geopolitical unrest and shifts and the intractable terrorism movement will create new and varying demands. A growing cascade of environmental issues will impact simultaneously at macro and micro levels: the Greenhouse/CO_2 effect, acid rain, nuclear and toxic waste disposal, on down to indoor home and office pollution and personal noise. There are no signs of any reversal in the shift of governmental functions from Federal to regional, state and local levels, and we know little about the impacts of this on defense. There are almost no predictions of a reversal of the conservative trend in politics regardless of which party or individuals are elected. We still haven't agreed on a name for the "telematics" or "compunications" (computers and communications) revolution. We do know we are well into it but are unsure of its direction, magnitude and effects. The same is true for the "steel collar" robot worker -- he/she/it is here, but what does it mean? Many of the new technology thrusts in materials, bio-technology, transportation, energy, housing, etc. must be tracked for unanticipated consequences. Health, medicine and the so-called "consciousness technologies" (meditation, bio-feedback, hypnotism, psychedelic chemicals, etc.) must be watched more closely, both with respect to the workforces and on performance of the management function.

DEFENSE SYSTEM CHALLENGES AND OPPORTUNITIES

It will most likely take all of the nineties to deal with an overriding issue of today -- morale of and respect for public workers and their institutions. The civil servants are at the bottom of this pile, feeling underpaid, underappreciated, overinspected and, most recently, not trusted. Especially at the senior executive level, they see the Civil Service Reform Act as a failure. Would-be presidents and members of Congress win office in campaigns including anti-bureaucracy planks. Waste, fraud and abuse are small in amount but large in the rhetoric of where and how much money should be spent. The official and off-duty behavior of some politicians has weakened public respect and trust in public officials in all three branches of government. The public and business openly wonder if their government is telling both the truth and the whole story. Government is concerned about the ethics of its suppliers of goods and services while the public worries about those employees shuttling back and forth between the two sectors. Except for the anti-nuclear movement and large but sincere differences over spending levels, there is no "anti-defense" trend. College reserve officer units are again flourishing, campus researchers seek defense R and D money, and to an increasing degree, patriotism is in. In business the trend is toward decentralization, "M-Form" organizations, even "intrapreneurship", but all that is hard to do in Defense. Some researchers tell us we may have reached the theoretical limits of managing complex, long duration, large-scale technological projects. Recent performance in energy, space and some weapons systems projects has done little to suggest that they may be wrong.

PEOPLE CHALLENGES AND OPPORTUNITIES

The changing demographics of the workforce will being about major changes in human resource management. The 60 million aging pre-World War II group at one end and the 30 million baby-boom echo cohort (aka "the computer babies") at the other will squeeze the 80 million "TV babies" of the fifties and sixties who are the heart of the current workforce. Balancing the differing generational sets of values will present managers (mostly in the two older groups themselves) with many new issues. In contrast to long careers or job ladders, managers will have to deal with "flow-through" people and do it in an atmosphere of cut-back management and rapidly changing technology. Maybe advances in expert systems will help. Defense organizations will find their already complex mix of political, civilian career, military career, and wage-rate employees further expanded by an increasing "quasi-public" contract group resulting from continuing privatization. Defense's special personnel issues of secrecy and multiple loyalties (national, civilian-military, and service or command-function) will most likely intensify.

The nineties will be interesting times for Defense human resources managers.

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Edith Weiner and Arnold Brown

Should robots pay taxes? Can Africa be saved? Do people have a right to quiet? These could be among the major issues of the 1990s.

any of the issues that dominate business, government, and even individual planning in the 1980s will continue to do so through the 1990s. Certainly the major economic ones will—deficits, currency fluctuations, free trade vs. protectionism, tax reform, job creation, commodity prices, unemployment, etc.

So, too, will many of today's pressing social, political, and technological issues—discrimination, unrest and conflict in the Middle East and Central America, acid rain, groundwater pollution, displacement of people by machines, nuclear weapons and nuclear power, drugs, education, crime, etc.

Although people try to categorize issues by decades and decades by issues, reality does not really allow us to do so. The major issues of the 1980s will persist, in one form or another, into the 1990s, and issues that we see emerging now will blossom in the 1990s and flourish well into the next century.

What, then, are the issues now emerging that seem likely to dominate thinking, planning, and decision-making in the United States and elsewhere during the next decade? Here, in no particular order, are a few revealed by intensive scanning of the media and other sources.

■**China as a world economic force.** As a market and as a marketer, China may well be the world's single most important economic factor by the end of the twentieth century. Recent political developments there—if not reversed in the next few years—could unleash a burst of new economic energy. The results, in terms of industrial might and purchasing power, could be spectacular.

■**Controlling health-care costs.** The driving force here is the aging of the population and the fact that older people use more health-care resources and use them more expensively. Nearly one-third of all Medicare expenses are incurred by patients in their last year of life.

With health-care costs now equaling over 11% of the U.S. gross national product and with ever more costly health-care technology, the growth of this problem is accelerating. There are already open discussions of triage—rationing health care. Older people, who see this as a direct threat to them, will fight this approach fiercely. Who gets and who pays for health care seems likely to be one of the more contentious issues of the 1990s.

■**Campus unrest.** Campus activism is re-emerging in the United States with protests against investments in U.S. companies doing business in South Africa. We are also seeing the wildfire nature of such protests, leaping from campus to campus. The movement should be in full swing by the 1990s, when a new, larger group of teenagers will inundate campuses.

Birth defects. This will be *the* environmental and occupational health and safety issue of the 1990s. There are several reasons for this, most of which have to do with the baby boomers.

In large numbers, baby-boom women are reaching their 30s and are having children. Baby boomers are not inclined to passivity; they are often skeptical and litigious, and they will fight against perceived threats to their offspring. They are much more aware than their predecessors of the effects of pollution, hazardous substances in the workplace, and electromagnetic radiation, all of which are linked to birth defects. (Note that obstetricians run the highest risk of being sued for malpractice.)

Saving Africa. The African continent becomes more an object of despair with every passing day. Famine, desertification, unending population growth, deteriorating infrastructures, almost unimaginable corruption and inefficiency—the list of symptoms reads like an Old Testament visitation of plagues. And things are going to get worse.

Improvements in agriculture elsewhere in the world and rapid development of substitute commodities and minerals will diminish markets for African exports. Population will continue to grow. The ability of African countries to feed their own people will continue to decline, and the desert will continue its seemingly unstoppable march across the continent. Can or will the rest of the world cooperate to slow or reverse the slide to destruction?

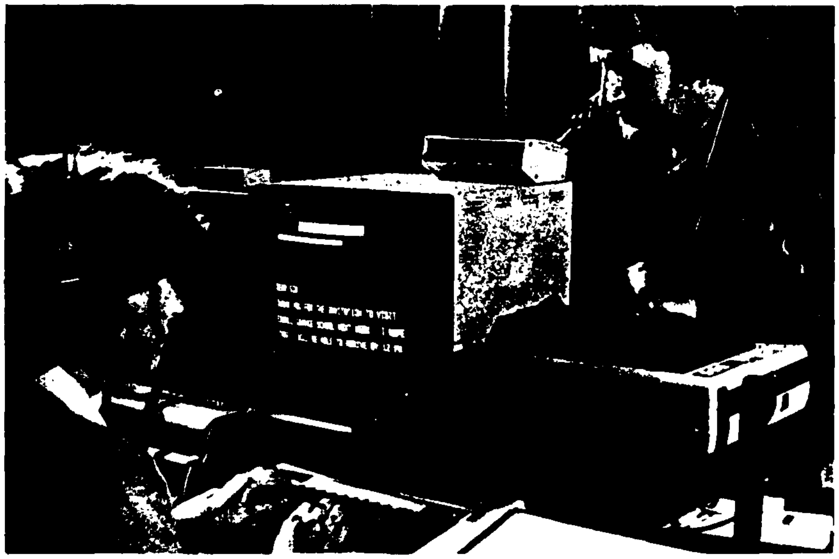
Distribution of wealth created by machines. As robots and computers do more and more work, displacing people in the process, society must come to grips with the matter of the wealth these machines create. In Sweden, employers pay the same taxes for robots that they do for people employed. In Japan, some companies pay union dues for robots. But these are merely actions, not answers.

Individual lifestyle excesses vs. community rights. This is not a return to either prohibition or Victorian morality. The new moralists and their largely grass roots organizations are saying, in effect, "If you choose to smoke or drink, that's your right; but the community has an equal right to be protected, and you will be held responsible for the consequences of your actions."

Similarly, the emerging battleground in employee benefits and health insurance could well be whether the community, the employer, or other employees should bear the cost of the results of individuals' lifestyle excesses.

WORLD BANK

Women use ancient methods to grind millet in Niger. The desperate problems of famine and poverty facing African nations will continue into the 1990s, with few solutions seen.


LONDON PICTURES SERVICE

Blind student uses computer terminal specially designed for the blind or partially sighted. Computers will increasingly affect both how subjects are taught and how students learn.

Land use. The "ecology ethic" has given us the view of Spaceship Earth, a finite planet with perceivable (and perhaps already reached) limits. One limited resource is land, particularly arable land. Even though food distribution is much more a problem than food supply, and even though agricultural technology promises abundance, there are still moral questions about what land is used for. In the United States, for example, questions are raised about growing tobacco instead of food, particularly because tobacco is seen as a harmful prod-

"It may be that, in the next decade, information protectionism will replace product protectionism."

LONDON PICTURES SERVICE

Video scan is used to observe and record the formation and weight of a baby in its mother's womb. The study and prevention of birth defects will be *the* environmental and occupational health and safety issue of the 1990s, say the authors.

uct. In Africa, too much land is used to grow export crops instead of food for inhabitants.

■ **The role of foreign capital in the United States.** Foreign money has been pouring into the United States at an unprecedented rate. While this is flattering testimony to the nation's economic strength and political stability, there are concerns about the extent to which foreigners own U.S. companies, real estate, and farmland and the manner in which this control will be exercised.

■ **Regulation of information transfer.** More and more of the world's transactions will involve information rather than goods and commodities, and more and more international commerce will entail the transmission of information. Governments are increasingly aware that control of information means preservation of power—both political and economic. As a result, perceived national interests dominate transborder information flows. It may be that, in the next decade, information protectionism will replace product protectionism.

Malpractice, today's boon for lawyers and bane for other professionals, may be replaced by information litigation in the 1990s. Copyright disputes (particularly those related to software and entertainment), patent infringements, industrial espionage, ownership of personal information (census data, for example)—these and other aspects of the Information Age will increasingly fill the dockets of domestic and international courts.

■ **Role of the computer in education.** Computers will affect how children learn to think, how teachers teach, the development of creativity, and many other areas. So far, the technology and its vendors have been the driving forces; we are seeing signs that the needs of the end-user—the students and schools—will increasingly determine the what, when, and how of computers in education.

■ **Climate changes.** The world's industries have increasingly spewed carbon dioxide and other gases into the atmosphere, and the buildup of these is resulting in a gradual but appreciable rise in the earth's temperature. Another major factor affecting climate is deforestation, particularly the destruction of tropical rain forests. The consequences, while not certain, will probably be adverse. Climatologists are beginning to see and understand long-range climate patterns, and there are indications that major changes may be under way.

■ **The right to quiet.** Privacy seems likely to continue—indeed increase—as a major concern for both individuals and society. Consequently, the issue of our right to privacy will probably become more complex, and aspects of it that are now relatively obscure will emerge as full-fledged issues in their own right.

One such aspect may be the right to quiet, particularly as technology diminishes the opportunities and places to hide. Aside from obvious invasive noise sources, such as "boom box" radios and snowmobiles, there are beepers, cellular telephones, computer printers, and other instruments that intrude on all within earshot.

■ **Fringe benefits for those not employed full time.** With at least 20% of the U.S. work force part-timers (with equivalent percentages in other developed countries), there is growing pressure to provide these workers with health insurance and other employee benefits, particularly because many of those working part time are doing so involuntarily. And with unemployment likely to remain at high levels, there is also pressure building to provide at least health-insurance coverage for the unemployed.

■ **Human language/computer language.** We are already seeing a backlash to the computer hype of recent years. Reacting to the rush to attain computer literacy, some observers are beginning to express

"Terrorism seems likely to grow in both practice and impact and may indeed become the dominant form of warfare, practiced by countries as well as guerrillas."

concern about the impact of computers on language skills. It is one thing for people who have already learned a language such as English to adapt to communicating with computers; it is quite another for young children whose language skills are still rudimentary to learn English on the basis of "computer literacy."

■ **International regulation of financial markets.** Finance has become internationalized to a degree no one would have predicted just a few years ago. Consequently, there is increasing pressure to establish and adopt standards for the protection of investors and the encouragement of further internationalization of investment. Who will set these standards, and who will enforce them? Debate is likely to go on through the 1990s.

There will be surprises—issues not yet detected that will demand attention in the 1990s. Inflation hovers over the economic scene like an evil spirit, capable of displaying its malice unexpectedly. Financial collapse, triggered by defaults of debtor nations and failures of major banks, could happen. War, of course, is always a possibility. Militant religious fundamentalism may continue to make major alterations in both developed and developing nations.

Technological breakthroughs could, as always, make a big difference. Possibilities exist in such areas as artificial intelligence. Major political upheavals in China or the Soviet Union are not out of the question. The oceans, too, will be a major concern with regard to resources (such as food and minerals) and pollution. And terrorism seems likely to grow in both practice and impact and may indeed become the dominant form of warfare, practiced by countries as well as guerrillas.

Of the hundreds of issues we detect and track, these few we have briefly described seem to us the most likely to have significant impact on the lives of people and on institutions in the next decade.

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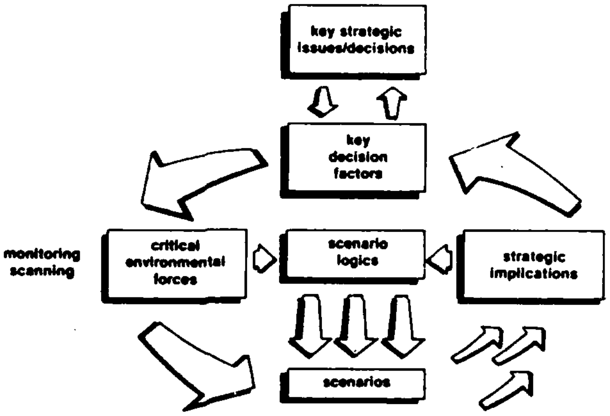
What We Did and How We Did It

George Wilkinson
Vice President, **Strategic Planning**
United Way of America

The Environmental Scanning Committee, led by Ian Wilson, senior management consultant, SRI International, devoted three meetings to the development of this publication. In July, 1982, the committee was instructed in the SRI technique of scenario construction. This technique is composed of six basic steps (see Figure 1):

Figure 1

scenario development process



1. **Identify the decisions** to be addressed in the planning process. These decisions define what it is about the future that we would like to know, and so become the focus for the scenarios.

2. **Specify the key decision factors** that influence the outcome of each decision (e.g., level of personal and corporate philanthropy, changing needs for human services, availability of government funding).

3. **Identify and analyze the macro-environmental forces** that affect those key factors (e.g., social, economic, political, and technological factors).

4. **Select several scenario logics** that will give coherence to the scenarios and result in structurally different views of the future (e.g., not simply "high growth" and "low growth" variations). This is the key step in the whole scenario process, and can be achieved by:

- Focusing first on those key forces that represent the *maximum* degree of criticality (i.e., they are the real "drivers" of the future) *and* uncertainty, and
- Ascribing alternate logics that explain *why* and *how* these selected forces might take different trajectories. We can think of these as being different "theories of how the world works."

5. **Elaborate a set of scenarios** (typically three to five) based on these driving forces and logics. For each scenario, describe how all the relevant macro-environmental forces and decision factors might be affected by the prevailing conditions of that scenario.

6. **Identify the decision implications** of each scenario, e.g., the potential opportunities and threats to be weighed in making the decision.

Following an introduction to the SRI process, the scan committee undertook each of the steps as outlined.

1. **Strategic Decisions.** The first step in the process was to identify the nature of decisions or areas of concern that were confronting United Way organizations. United Way of America staff listed nine major areas. These were:

- Increasing (and changing) competition. The rising number of requests by other organizations competing for access to the workplace, as well as the new phenomenon of local government seeking philanthropic gifts to help offset shortfalls in local revenue;
- The need to reposition and distinguish United Way from other fund-raising organizations;
- The possibility for corporations to preempt some of United Way's traditional roles, such as managing the single campaign at the workplace or allocating to community organizations;
- United Way's role in community planning and problem solving;
- United Way's relationship with organized labor and the need for a United Way presence at the workplace;
- The continuing growth of donor option programs;
- The changing portfolio of United Way funded services and changing societal and donor needs;
- Dealing with the problems of the United Way as a mature organization, resistant to change;
- The changing economic structure with its relative decline of large manufacturing corporations and rise of small businesses.

This process of definition helped focus and constrain the subsequent steps in generating, refining and applying the scenarios. Insufficient focus could result in scenarios too global and too general to be useful. Inadequate definition of strategic concerns often lead to too many scenarios or to scenarios that roam too far afield from what is most relevant.

2. **Key Decision Factors.** Once the committee gained an understanding of the strategic decisions and issues confronting United Ways, its members looked at the issue of planning scenarios. They agreed that to be useful in the decision-making process, planning scenarios would have to depict alternative plausible futures primarily in terms of such factors as:

- Demographics (e.g., population/labor force growth, age mix, migration/immigration, minorities);
- Social and personal values (e.g., attitudes toward government, personal giving, voluntarism, cooperation);
- State of the economy (e.g., GNP growth rate, inflation, unemployment, savings);
- Structure of the economy (e.g., manufacturing vs. services, low-tech vs. high-tech, location of industry);
- Role of corporations and unions (e.g., social legitimacy, growing or diminishing role, social welfare programs);
- Role of governments (e.g., levels of taxation and spending, social welfare policies);
- Technological change (primarily the impacts of information/communications/computer/robotics technologies);
- Competition in the philanthropic "market" (e.g., churches, community action groups, hospitals).

Thus, while the "bottom line" of the scenarios must be descriptions of United Way's arenas of activity, the committee agreed they had to be based on—indeed, would be driven by—macro-environmental forces such as those listed above.

3. **Key Societal Forces.** In this next step, the committee reviewed both the strategic decisions and the key decision factors. Thus, they could identify the forces in the macro-environment that could potentially create the greatest change for United Way organizations and affect the strategic decisions facing United Ways. In this exercise, the focus was largely on six items:

- Restructuring of society and values differentiation
- Economic growth (improving or declining)
- Value system ("East or West")
- Ideologies (communitarian vs. individual)
- Welfare (dismantled vs. leveling)
- Restructuring of the economy.

4. **Analysis of Key Forces.** Each of these six topics was discussed in some detail regarding its eventual impact on United Way. In discussing these key forces, the committee also looked at the relationship among the key forces. The committee recognized that scenarios are intended to confront, explicitly, the uncertainty that is inherent in a turbulent and rapidly changing environment. Scenarios should assist decision making by, in effect, structuring an "envelope of uncertainty" within which planning should take place.

5. **Scenario Logic.** In an effort to structure United Way's planning scenarios to this end, the committee considered a number of alternative logics focused on divergent outcomes of some of the key decision factors. However, it became apparent relatively quickly that the major uncertainties focused on *the economy* and *values*:

- As to the economy:
  Either the United States economy recovers from its prolonged recession as the result of incentives, a new industrial strategy and a radical restructuring, and moves into a new period of vital growth;

  Or, it experiences slow, cyclical growth (at best), losing world position as the result of a failing "reindustrialization" strategy (aimed at preserving traditional U.S. manufacturing), and remaining unable to resolve the inflation-unemployment trade-off.
- As to social and personal values:
  Either values remain in a relative traditional mode (individualistic, competitive, economics-dominated—cf. Yankelovich's "old values"; Mitchell's "outer-directed");

  Or, they experience something of a "transformation" (toward a more communitarian, cooperative, and ecological ethic primarily as the result of persistent global problems—cf. Yankelovich's "new values"; Mitchell's "inner-directed"; Lodge's "new ideology").

At this step of the process, the committee created a matrix (shown in Figure 2) using the major areas of the shift in values and the restructuring of the economic system. By examining the intersections, they identified four primary scenario logics.

- Economic restructuring works and traditional values prevail.
- Economic restructuring works but transformational values prevail.
- Economic restructuring fails and traditional values prevail.
- Economic restructuring fails but transformational values prevail.

Figure 2

scenario construction

alternative scenarios

	Social/Personal Values	
Economic Restructuring	Traditional	Transformational
Works	America Revitalized **scenario a**	Post-Industrial Reformation **scenario b**
Fails	Stressed Society **scenario c**	Community Welfare Society **scenario d**

The committee broke itself into four groups with each volunteer group augmented by United Way of America senior staff. Each group took one of these scenario sets and described its view of what would happen. The committee reported their findings and their descriptions were recorded. As a result of this first exercise, the committee gave a working title to each of the scenarios.

- *Scenario a* was identified as "Individualistic Competitive, Revitalization of the American Way."
- *Scenario b* was identified as a "Communitarian Cooperative" or "Happy Days."
- *Scenario c* was identified as a "Return to the 1870s."
- *Scenario d* was identified as "Post-Industrial Feudalism."

6. **Scenario Elaboration.** At the next meeting (December, 1982) of the Scanning Committee, Ian Wilson provided an overview and refinement of the committee's original description and led a discussion of each scenario. Four groups again formed and further elaborated on the scenario logics. As a result of this activity, the committee formulated a new document and provided new titles for the scenarios (as shown in Figure 2).

The scenarios as described are shown in Exhibit 1 in this document, complete with descriptors for each scenario in the social, economic, political areas. Technology, *per se*, was not identified as a descriptor within the scenarios on the basis that it fueled the economic section and would be basically the same across all scenarios. This, however, remains a matter for debate and further elaboration in future work by the committee.

At the third committee meeting (July, 1983), the logics were further tested through consensor exercises led by Dr. Clement Bezold of the Institute for Alternative Futures. In these exercises, committee members tested variations of the internal logics and reached consensus regarding the parameters of the inflation rate under the scenarios, as well as unemployment rates. In addition to testing for internal consistency, the committee took part in exercises to test the probability of occurrence of the individual scenarios and of the scenarios occurring in some sequential form. The results of these votes and the probability of occurrence are shown below:

Scenarios	**Probability Of Occurrence**
a. America Revitalized in 10 Years	36%
b. Post-Industrial Reformation in 10 Years	36%
c. Stressed Society in 10 Years	40%
d. Community Welfare Society in 10 Years	20%

Sequential Future	**Probability Of Occurrence**
Scenario a b c	27%
Scenario a b	30%
Scenario a c b	42%

The committee first voted on the probability of each of the scenarios occurring. In their view, scenarios a (America Revitalized), b (Post-Industrial Reformation) and c (Stressed Society) all were equally likely to happen.

They then voted a second time to test the probability of these scenarios occurring sequentially. Here the committee expressed the viewpoint that the sequence of scenarios a (America Revitalized) to c (Stressed Society) to b (Post-Industrial Reformation) was the most likely.

After completing the vote, the committee observed that many other scenarios could be drafted in addition to these four. They agreed that the four scenarios, as described, did not include a number of "wild card" events that could happen: for example, events such as nuclear war, the potential collapse of the international banking system, major scientific breakthroughs in genetic engineering or disease prevention, the outbreak of major new diseases such as AIDS, and no major variations in population characteristics such as size, growth rate, etc.

With these comments, the committee concluded its work on the scenario development process.

UW Planning Scenarios:

	Economic Restructuring Works Traditional Values Prevail	Economic Restructuring Works Transformational Values Prevail
DESCRIPTORS/SCENARIOS	**"AMERICA REVITALIZED"**	**"POST-INDUSTRIAL REFORMATION"**
A. SOCIAL		
Societal/Personal Values	• Continued predominance of economic/achievement/competitive values (reinforced by economic success) —Stress On: Self-Reliance Upward Mobility Competition/"The Market"	• Growing influence of inner-directed/less materialistic/cooperative values ("restructuring" of values as well as the economy) —Stress On: Self-Actualization Experiences vs. Possessions Cooperation/Compassion
State/Mood of Society	• Generally ebullient and optimistic, "onward and upward" mentality, with "can do" approach to problems (reliance on traditional solutions)	• Mood of quiet confidence and experimentation; commitment to conscious restructuring of economy and society
Attitude Toward Societal Institutions	• Restored confidence in private sector/market as opposed to governmental (especially federal solutions) —Strong support for small businesses and (more selectively) corporations —Belief in more limited role for government (events seem to justify this belief) —Unions perceived as less relevant or needed, esp. in small business sector —Private sector dominant over public sector. Emphasis on private initiatives.	• Growing belief in need for new institutional forms and arrangements (but incremental, not radical, change) —Support for federal (indicative) planning role to promote economic adjustments —Larger social role demanded of corporations, with public-private sector cooperation —Much greater emphasis on public participation in decision-making (in all institutions)

Tabulation of Key Descriptions for 1983-2000

Economic Restructuring Fails Traditional Values Prevail	Economic Restructuring Fails Transformational Values Prevail
"STRESSED SOCIETY"	**"COMMUNITY WELFARE SOCIETY"**
• Major segments of population constrained by basic security/survival values —Stress On: Economic Security "Us" vs. "Them" Making Ends Meet	• Increasing emphasis on frugal conserving/ecological values (in response to economic and global problems) —Stress On: Conservation (vs. Consumption) Local Self-Sufficiency
• Generally pessimistic about present and future; siege mentality, with high degree of intergenerational conflict	• Blend of optimism and confusion due to shifting values and limping economy
• General distrust of both government and business, but increased demands on both (for lack of alternative) —Government perceived as ineffective, but needed as protector of growing underclass —Corporate leadership blamed for economic failures; growing demands for job security, limits to automation/plant closings —Unions radicalized ("return of IWW") —Public-private sector recriminations	• Strong trend toward decentralized/local/informal institutions (perceived as more relevant than older, more centralized institutions) —"Neighborhood self-help" replaces reliance on governmental aid programs —Underground economy (barter) grows at expense of regular economy —Proliferatation of special (local and regional) interest groups —Blurring of public-private sector distinctions

	Economic Restructuring Works Traditional Values Prevail	Economic Restructuring Works Transformational Values Prevail
DESCRIPTORS/SCENARIOS	**"AMERICA REVITALIZED"**	**"POST-INDUSTRIAL REFORMATION"**
State of Philanthropy/Voluntarism	• Strong preference for voluntary giving (as opposed to being taxed to provide federal welfare) —But philanthropy limited by ethic of self-reliance —Emphasis on giving to/working for organizations of one's own choice	• Growing influence of compassion and "social consciousness," expressed through individual action and organizations —Support for programs to address the social cost of "restructuring" —Increased willingness to contribute personal time and money
B. ECONOMIC		
GNP Growth Rate (In *Real* Terms)	• Strong recovery (5-6% p.a.) through 1984-85; followed by solid growth (c.3.5%) through rest of period, with normal business cycles —"Success of Reaganomics"	• Weaker recovery than in "America Revitalized" (3-4% p.a.); then, after low growth in 1985-86, economy gains strength as restructuring takes hold (c.4% toward end of period)
"Underground Economy"*	• Holds at 15% of GNP	• Rises to 25-40% range; perceived as acceptable outlet for individual entrepreneurship
Economic Structure	• Successful reindustrialization slows erosion of U.S. manufacturing base, continued incremental diffusion of computer/communications/microelectronics technologies —Large corporations grow in size —But employment gains focused in small, entrepreneurial firms	• Conscious, coordinated public-private sector efforts to restructure economy toward the "information society," accelerated movement of basic manufacturing in NIC's and LDC's —Accelerated development of new telecommunications infrastructure (e.g., microwave, cellular phone systems)

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*That portion of the economy whose transactions are not reported to the government. Example: Crime receipts, barter transactions

NOTE: p.a. = per annum
NIC = Newly Industrialized Countries
LDC = Less Developed Countries

Tabulation of Key Descriptions for 1983-2000

Economic Restructuring Fails Traditional Values Prevail	Economic Restructuring Fails Transformational Values Prevail
"STRESSED SOCIETY"	**"COMMUNITY WELFARE SOCIETY"**
• Triage mentality (and predominant concern for personal/family needs) dominates social scene —Philanthropic organizations in a permanent state of crisis —Time available for volunteer work, but little interest	• Strong sense of humanitarianism at local level —Philanthropy/voluntarism vary greatly by region —Reliance on new, grass roots (vs. older, traditional) agencies
• "Hard times" for 10 years; highly cyclical fluctuations producing little growth by end of period (in real terms, 1990 GNP is at about 1980 level)	• Slow growth, averaging 1.5-2% p.a. throughout period, with some years of negative (real) growth
• Grows rapidly to be 30-50% of formal GNP, due to attractiveness of barter and avoidance of taxes	• Grows to become 20-40% of GNP as local informal "cooperatives" proliferate
• Restructuring (and reindustrialization) fail, pressure grows to preserve status quo by strong protectionist measures (e.g., domestic content laws) —Much of economy is "maintenance driven, not innovation driven" —Shake-out in hi-tech industries	• Little restructuring; continued erosion of U.S. position in world economy (except agricultural exports) —Accentuation of "regional economies," as decentralization of economy proceeds

UW Planning Scenarios:

DESCRIPTORS/SCENARIOS	Economic Restructuring Works Traditional Values Prevail "AMERICA REVITALIZED"	Economic Restructuring Works Transformational Values Prevail "POST-INDUSTRIAL REFORMATION"
Infrastructure	• Slow but steady infrastructure improvements	• Major effort to rebuild infrastructure
Education	• Growing consensus for increase of resources for education. Notable local successes and failures. Gradual improvement of average test scores	• Major effort directed at raising level of proficiency of all students. Increasing emphasis on use of computers in all phases of education. Emphasis on adult ed. classes and on retraining (to accommo-economic restructuring needs)
Unemployment	• Cyclical, ranging from 7-12%	• Relatively high (in 7-13% range) for most of period due to restructuring adjustments
Inflation	• Cyclical, but remaining in 4-10% range (aided by competition and lower federal deficits	• Fluctuates between 4-12%
C. POLITICAL		
Predominant Political Philosophy	• Conservative/Jeffersonian (not necessarily "right wing") —Emphasis on maximizing private sector role	• Independent/pragmatic —Emphasis on (indicative) planning public-private sector cooperation
Economic Policy	• Deregulation and reindustrialization incentives (R&D, modernization, automation) at home, free trade/competition in world markets	• Explicit national industrial strategy to promote economic restructuring (research centers, RFC-style funding), and global rationalization
Social Policy/Spending	• Social spending declines as % of GNP, welfare needs diminish, health and education spending grows	• Social spending increases somewhat as % of GNP, focusing on aid to individuals and communities affected by economic restructuring and imports

Tabulation of Key Descriptions for 1983-2000

Economic Restructuring Fails Traditional Values Prevail	Economic Restructuring Fails Transformational Values Prevail
"STRESSED SOCIETY"	**"COMMUNITY WELFARE SOCIETY"**
• Continued decline in infrastructure overall. Spot improvements as a result of depression-era public works type projects	• Infrastructure improvements vary by region; some do a lot, others do very little
• General educational decline except in very affluent communities	• Regional variations in efforts to improve education, geared to work-related skills
• Chronic, in 10-17% range throughout period (but official figures neglect "underground employment" —In addition, many discouraged workers drop out of (or do not enter) the work force	• Chronic, in 9-17% range throughout period (but official figures neglect "underground employment")
• Fluctuates between 6-20% (7-8% average over decade driven up by unemployment compensation, oil shocks, protectionism)	• Kept in 6-12% range by persistent structural inefficiencies
• Old style liberal/regulatory —Emphasis on social welfare, control of private sectors	• Communitarian/decentralist —Emphasis on experimentation in local governance
• Widespread economic controls adopted (despite past failures) together with jobs-promoting incentives, strong protectionist stance, bailouts of companies affected by imports	• Few initiatives at federal level except for some protectionist and export promotion measures; major activity in regional and local economic development
• Spending on unemployment compensation, public works; welfare rises, but still constrained by revenue shortfalls; federal and state plant closing laws enacted. Radical economics a la Depression era.	• Economic constraints on all government spending, initiatives in taxing consumption (vs. income) and in promoting voluntarism

PANEL 4 TOPIC: STRUCTURING ORGANIZATIONAL REWARDS TO MOTIVATE PERFORMANCE

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PANEL 4 REPORT

STRUCTURING ORGANIZATIONAL REWARDS TO MOTIVATE PERFORMANCE

I. THE ISSUES:

- Non-financial rewards
    - Symbol systems, awards, recognition
    - Internal/external participation in training programs
    - Committee work, professional associations
    - Feedback
    - Organizational participation through communication systems -- job design (flexibility), promotions, timing
    - Continuity in our program design -- no quick fix
    - Pride and committment to organization
    - Recognition
- Financial rewards
    - Bonuses, profit sharing, gain sharing
    - Cafeteria compensation and benefit plans (array of choices)
    - Caps on salary; pay compression
    - Legal services, work programs
- Flexibility of reward system
    - Degree of flexibility from rigid work week (cafeteria system, flex-time, job sharing, contingency time off)
    - Designing our reward systems to address the needs and individual differences of employees (change with time, dynamics)
- Performance/reward relationship
- Performance appraisal effectiveness
- Overall role of goal setting
- Equity of reward systems (meaningful, covers all employees, etc.)

    - Competitive versus comparable reward/pay system
- Pride and commitment with organization

II. RECOMMENDED ACTIONS:

- Increase basic research on subject
- Institute pilot field projects to test reward and benefits program
- Exchange research ideas and actual results between public and private sectors
    - Human Research Information Network, The Conference Board research, etc.
- Apply what we know in education and training programs
- Secure commitment of senior management
    - Demonstrate behavior and performance changes
    - Demonstrate improvements in relation to organizations' strategic goals
    - Clarify and advertise (market) efforts in reward systems (Public Relations, Employee Newsletter, etc.)

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- Exchange personnel
    - Attend conferences
    - Visit sites
- Exchange information (Journals, Magazine)
- Develop more detailed descriptions of each member's reward/evaluation system
- Foster networking

ISSUE PAPER

PANEL 4 - STRUCTURING ORGANIZATIONAL REWARDS TO MOTIVATE PERFORMANCE

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Related Background Papers

Lockwood, Diane L. and Fred Luthans, "Contingent Time Off" A Nonfinancial Incentive for Improving Productivity," *Management Review*, July 1984, pp. 48-52, American Management Association, New York.

Kreitner, Robert and Fred Luthans, "A Social Learning Approach to Behavorial Management: Radical Behaviorists 'Mellowing Out,'" *Organizational Dynamics*, 1984, pp. 47-65, American Management Association, New York.

STRUCTURING ORGANIZATIONAL REWARDS TO MOTIVATE PERFORMANCE

I offer this short paper as a point of departure and discussion vehicle for our panel's exploration of the use of rewards to motivate human performance in today's organizations (both in the private sector and in the Department of Defense).

A major common theme for both last year's and this year's National Forum on Human Resources Planning has been organizational effectiveness. Traditionally, the technological side of organizational effectiveness has been emphasized and must be given continued attention in the future. Not so obvious has been the importance of the "other side," the "human side" of organizational effectiveness. Yet, there seems little doubt that the potential for improvement is much greater on the human than on the technological side of organizations today and in the future. In fact, the assumption made by this paper is that: Performance of human resources is the key challenge facing organizations in both the private and public sectors of our nation now and in the foreseeable future.

To date, there have been many suggested theoretical frameworks such as Maslow's hierarchy of needs, Herzberg's two-factor theory, Vroom's expectancy theory, Alderfer's ERG needs, Porter and Lawler's performance-satisfaction model, and Adam's equity theory. These all attempt to better understand work motivation and have generated considerable research over the years that has tested various predicted relationships and impacts on the variables of performance, satisfaction, and retention (see Luthans, 1985, for a summary of research on work motivation). This effort has certainly led to a better understanding of the complexities of motivating today's employees. But, unfortunately, with the possible exception given to job redesign, the considerable theoretical development and research conducted on work motivation has not been able to be applied to effective human resource management and "bottom-line" performance.

To meet the difficult challenges facing both private sector firms and DoD now and in the future, new theoretical frameworks and accompanying basic research that has direct application for human resources policies and practices are needed. What is proposed here is such a new theoretical framework based on reinforcement and "choice" as being central to employee performance. The discussion that follows and the accompanying articles will give more of the background and specifics of what is proposed.

THEORETICAL FRAMEWORKS AND RESEARCH RESULTS

Recently, managers across the country have awakened to the importance of human resource management. Recent books by Tom Peters, John Naisbitt, Ken Blanchard, and others have had unprecedented success. Business Week has labeled the followers of these best sellers as the MBBS approach to management (Management By Best Seller). I think these books have served a very useful purpose and offer many excellent insights into improved management of human resources. However, to get away from the "quick fix" syndrome and the "faddish" nature of this MBBS approach, I think it is time to move to a MBRR approach (Management By Research Results). It is time to establish some sound theoretical frameworks and look at research results that link to the more effective practice of human resource management.

As indicated in the introductory comments above, to date, the theoretical development and research exploring the effectiveness of human resources in modern, complex organizations has been dominated by cognitively-based motivation models (i.e., Maslow, Herzberg, Vroom, Porter and Lawler, and Adams). Behaviorally-based, reinforcement models (e.g., Luthans and Kreitner, 1975, 1985) have only recently begun to receive attention. While these behaviorally-based reinforcement techniques do not give direct attention to job satisfaction, they have been demonstrated to have a positive impact on quality control (Adam, 1972, 1974; Adam and Scott, 1971), punctuality (Herman et al., 1973), absenteeism (Nord, 1970; Pedalino and Gamboa, 1974; Kempen and Hall, 1977; Orpen, 1978; Stephens and Burroughs, 1978; and Luthans and Maris, 1979), and, most importantly, employee performance (Ottemann and Luthans, 1975; Hamner and Hamner, 1976; Komaki et al., 1977; Luthans and Schweizer, 1979; Luthans, Paul, and Baker, 1981; Snyder and Luthans, 1982; Luthans, Macaig, and Rosenkrantz, 1983; Lockwood and Luthans, 1984; and Luthans, Paul, and Taylor, 1986).

Importantly, these studies cited above depended almost totally on nonfinancial rewards to greatly improve employee performance. In particular, feedback and social recognition/attention were by far the most common reinforcers that were used. In one case contingent time off (at no cost to the organization) was able to dramatically improve the quantity and quality of work. The "return on investment" in these examples is unbelievably high (little or no cost and tremendous returns). For example, in one of the companies several million dollars of increased productivity resulted from a few thousand dollars of training costs (Luthans, Macaig, and Rosenkrantz, 1983).

Besides the impact of overall reinforcement management techniques, there have also been a number of laboratory and field studies that have examined the impact that schedules of reinforcement have on employee performance (Yukl et al., 1972; Yukl and Latham, 1975; Yukl et al., 1976; Latham and Dossett, 1978). Besides these refinements of reinforcement theory coming from the schedules of paying employees, other important questions such as the impact that "choice" of reinforcement has on employees have not been explored. Yet, there is growing evidence from experimental psychology that suggests that the ability to choose one's own reinforcement conditions has a significant positive impact on performance (Thoresen and Mahoney, 1974).

Studies on animals (e.g., see Voss and Homzie, 1970; Cantania, 1972) and children (e.g, see Lovitt and Curtiss, 1969; Brigham and Sherman, 1973) indicate that conditions allowing choice are clearly preferable and the choice itself has reinforcing properties. When adult subjects have been used (e.g., Perlmutter, et al., 1971; Monty and Perlmutter, 1973; Monty et al., 1973) the importance of choice is supported although moderating effects such as meaningfulness and task difficulty are found. These latter findings suggest that more comprehensive, inductive theory building for choice would be needed for applications to human resource management.

Besides the implications that reinforcement notions have for developing the theoretical underpinnings of choice, especially from the studies using adult subjects, it is clear that attribution models can also play an important role. Attribution theory (Heider, 1958; Kelley, 1973; Weiner, 1974) assumes that individuals are rational and are motivated to identify and understand the causal structure of their relevant environment.

Attribution theorists believe that both internal forces (e.g., effort or ability) and external forces (e.g., task difficulty or luck) additively combine to determine human behavior. In particular, a person's perceived locus of control (Rotter, 1966) will affect his/her behavior. For example, in work settings it has been found that internally controlled employees are generally more satisfied with their jobs, are more likely to be in managerial positions, and are more satisfied with a participatory management style than are employees who perceive external control (Mitchell et al., 1975). Other studies have found internal managers to be better performers (Anderson et al., 1977; Anderson and Schneier, 1978), more considerate with subordinates (Pryer and Distenfano, 1971), and tending to follow a more strategic style of executive action (Miller, Kets DeVries, and Toulouse, 1982). A key ingredient of these attributional explanations of behavior is the amount and type of perceived control exercised by the employee. Choice would seem to play a significant role in the perceived locus of control of an individual.

From the above discussion, it can be seen that both a reinforcement and an attribution theoretical approach and its accompanying research have a lot to offer for the better understanding of effective human resource management. They seem to offer a much more promising theoretical and research base than the more traditional motivational models of Maslow, Herzberg, Vroom, Porter and Lawler, and Adams. But, by themselves, both the reinforcement and attribution approaches lack the necessary linkage to each other and to the actual practice of human resource management through personnel policies and practices. This paper suggests that "choice" may provide an important linkage between the theoretical approaches and actual practice.

DIRECT IMPLICATIONS THAT CHOICE MAY HAVE ON PERSONNEL POLICIES AND PRACTICES

"Choice" is proposed here as one important way to link behaviorally-based reinforcement approaches with cognitively-based attribution approaches into an overall theoretical framework for the more effective practice of human resource management. This use of "choice" can be refined and predictive relationships established through sophisticated laboratory and field research. Perhaps most important for the purposes of our panel discussion, however, is the fact that flowing from this theory building and research would be direct applications to human resources policies and practices such as the following:

1. Cafeteria Approaches to Compensation and Benefits. About 25 years ago Nealey (1963) suggested that a clearly superior way to motivate employees would be to give them a "choice" as to the relative amount of cash versus fringe benefits that they receive. Paine (1974) defines this flexible or cafeteria compensation system as "a system under which each individual has some choice as to the form and timing of all or a portion of his total compensation" (p. 56). There is some research evidence that indicates large individual differences among employees in the value they attach to various fringe benefits (Lawler, 1971). This, of course, suggests that many employees are given very costly fringe benefits that they do not value very highly. Cafeteria plans can solve this problem and as Lawler (1971) has suggested "should not only reduce turnover but make more people choose to work in the organization that uses it" (p. 199). The implications of cafeteria plans for both private sector and DoD organizations seem extremely significant. Some practical problems with this approach have been pointed out (Milkovich and Delaney, 1975; Goode, 1977), but the tremendous potential this may have for the performance, satisfaction, and retention of today's employees cannot be ignored.

2. Flexitime. Flexitime or flex-time has been widely used in Europe for many years and is gaining popularity in this country. One survey indicates that 12.8 percent of employees in nongovernment organizations and 5.8 percent of all employees are under some form of flexitime system (Nollen and Martin, 1978). Firestone, Sun Oil, Samsonite, the U.S. Social Security Administration, Sandoz-Wander, and Mutual of New York are widely publicized examples of organizations using flexitime. It is generally agreed that flexitime gives the employee a "choice"

in the hours worked. Although there is a flood of articles extolling the virtues of flexitime, to date there has been very little empirical evidence evaluating its impact. Our own preliminary work in a state government agency indicates that flexitime can have a favorable impact on employee satisfaction and performance (Harvey and Luthans, 1979). As with the cafeteria plans, there would be some practical problems implementing a flexitime system in DoD. But also like the cafeteria plans, the potential this system may have for the performance, satisfaction, and retention of both private and military/civilian personnel is too important to be ignored.

3. Four-Forty (Four-Day, Forty-Hour) Workweek. Still another direct application flowing from a "choice" theoretical framework would be to give employees the opportunity to work a 4-40 or four-day workweek. The traditional work schedule is eight hours a day, five days a week (commonly called the 5-40 schedule). In the last few years, however, some organizations have begun to experiment with alternatives, supposedly to improve performance, satisfaction, and retention of their employees. Several recent economic, social, and political pressures have also contributed to the decision to alter conventional 5-40 work schedules. In the economic sphere, inflation has often made it necessary for husbands and wives to be employed to maintain an adequate standard of living. Consequently, there has been a search for innovative ways to schedule work in order to accommodate the family needs of working parents with young children. In addition to dual career families, there has been an increase in the number of single parents with work scheduling difficulties. Social forces have focused renewed attention on increasing the quality of life in general and leisure time in particular by providing three-day weekends, more holidays, "mental health" days, and so forth. Increased leisure time is seen as a means of coping with job stress. In addition, in the drive to cut back the nation's use of oil, the potential fuel

consumption savings from employees commuting to work on a four-day (as opposed to five-day) schedule has stimulated interest in 4-40 work schedules. To date, there has been very little systematic evaluation of the effects of these 4-40 schedules and those few studies have mixed results. Our own preliminary research indicates that 4-40 schedules may have considerable potential to improve employee satisfaction and absenteeism (Millard, Lockwood, and Luthans, 1980). Like cafeteria plans and flexitime, 4-40 schedules would pose some unique, practical problems in being implemented by DoD. But also like the other personnel policies and practices flowing from the "choice" framework, how can DoD afford not to at least explore the impact that 4-40 workweeks have on performance, satisfaction, and retention?

4. Job Sharing Programs, Personal Time Banks, and Others. The most obvious applications from the theory and research on "choice" would be cafeteria benefit and compensation plans, flexitime, and 4-40 workweeks. Potentially other innovative "choice" techniques could be tried. Examples may be such techniques as job sharing where two (e.g., husband and wife) or more people share a job and determine among themselves how they schedule themselves to perform the job. Another example might be a personal time bank plan whereby the employee can pool his/her sick leave time, vacation leave time, and holiday time and draw from this any way he/she wants or cash-in for equivalent pay. These latter techniques, and surely there are others that could be developed, have not been evaluated yet but their potential impact on employee performance seems promising.

OTHER HUMAN RESOURCE MANAGEMENT TECHNIQUES

Besides the human resources management techniques flowing from "choice," I would also like to discuss other proven (from research or MBRR) techniques such as the following in our panel discussions:

1. Goal Setting

2. Participation

3. Feedback

4. "Excellence" Tools

5. Job Redesign

6. Organizational Behavior Modification

I would like to relate and analyze the current "state of the art" (from theory, research, and practice) of these techniques.

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Contingent time off: A nonfinancial incentive for improving productivity

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FRED LUTHANS

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Contingent time off: A nonfinancial incentive for improving productivity

DIANE L. LOCKWOOD
FRED LUTHANS

EXCESSIVE LABOR cost is unarguably one of the most serious problems facing ailing industries as well as those that are losing out to foreign competition.

Most companies have reacted by attempting to obtain wage concessions from their employees—the alternative being a complete shut down. This is a "lose-lose" strategy for both the companies and their employees: The companies either get wage concessions and disgruntled employees or they go bankrupt; employees either take pay cuts or become unemployed.

There is an acceptable way out of this dilemma: contingent time off.

What is a CTO plan?

A contingent time off (CTO) plan is an informal company-employee contract in which the firm promises its workers that if they perform at an agreed upon level, they will receive an agreed upon amount of time off. Under the typical CTO plan, employees are paid the equivalent of an 8-hour day's wage or salary, regardless of the time it takes to meet the goals or standards. Importantly, the plan is aimed at increasing performance or reducing costs at no additional expense to the company.

Financial incentive plans (profit sharing, piece rate wages, bonuses, or commissions) all add to labor costs. Many companies cannot afford this luxury. They need to increase their productivity, but at the same time, they need to hold the line on costs. The lose-lose strategy of wage reductions will not accomplish this aim. But a CTO plan can be considered a win-win strategy because the company gets increased performance at no extra cost, and the employees get desired time off and a sense of accomplishment.

There are several variations of CTO plans, but their essential characteristic is "earned time," which allows employees more leisure time

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CTO programs provide a win-win strategy for both employees and company because they are founded on the basic principle of rewarding performance in return for improving quality and helping to lower costs.

once agreed upon performance goals are met. (CTO should not be confused with flexitime systems, which usually are non-contingently applied.)

Daily CTO plan

An earned-time approach to CTO took place in a large manufacturing plant that employed about 2,000 hourly workers. Production tasks were performed by non-interdependent work groups that assembled different kinds of parts. In this operation, availability of parts was guaranteed and did not present a problem.

The company asked for help in designing a cost effective piece-rate system. Market demand for the product was high, and the company wanted to increase output without hiring additional labor or paying overtime. After considerable discussion, top management agreed to implement a CTO plan in one of the work groups that had a particularly low performance record.

Previous to the CTO plan implementation, the daily production standard for this group had been 160 units with a ten percent acceptable quality rate (equal to or less than 16 defective units per 160 produced). In developing the CTO plan, all work group members were interviewed. They felt that 200 units per day was a reasonable standard (with appropriate quality) if the entire work group could leave the work site once this standard was attained. They also stressed that parts availability must be guaranteed. After additional discussions, the work group agreed that for every defective unit, three acceptable units had to be produced above the 200 standard to make up for rework costs before the entire group could leave the work site. Thus, the contingency contract became: *If* 200 units were produced at the agreed upon level of quality, *then* the workers would be done for the day and could leave the plant prior to the end of their shift.

Within one week following implementation of this CTO plan, the 200 unit goal was attained with an average quality rating of 1.5 percent defects (3 units per 200 produced), and employees were leaving work after an average of 6.5 hours per day. In other words, the plan had a phenomenal impact on performance. The employees wanted no defects. They complained that the few defects they had were due to defective supplier parts and beyond their control. Despite this type of complaint, almost all group members were quite satisfied with the CTO plan. It was a win-win situation in which the company received greatly increased productivity and improved quality and, at the same time, employees earned time off.

Meanwhile contingency plans were in the process of being developed in the event that standards had to be raised due to things such as new equipment being introduced or new products being produced. Plans were also underway for plant-wide implementation of CTO, but an unanticipated event occurred—a transition in which a new general manager was not supportive of the CTO concept or its application. His rationale was: "If our employees can produce 200 units in six hours, then they were 'gold-bricking' before, and since we pay them for an eight-hour day, they should be able to produce at least 240 units." In brief, the CTO contract was broken by this manager and production fell to 140 units in the eight hour day; 20 units less than the original 160 produced before the CTO plan had been implemented and 60 units less than they had been producing in only 6 hours under the CTO plan. Such a turn of events illustrates a classic "boomerang" effect where the final results were worse than if the CTO plan had not been implemented in the first place.

This postscript points out the absolute necessity of making appropriate provisions for continuation of the contingency contract with the employees in the event of a top-level managerial transition. If such assurances of support and commitment cannot be guaranteed, then an organization needs to seriously consider the feasibility of embarking on a CTO plan.

Year-end CTO plan

In this type of plan, employees receive the remainder of the calendar year off with full pay when the required units have been produced at appropriate quality levels. This took place in a nonunionized high technology manufacturing firm with 1,000 employees; a management-by-objectives (MBO) program was already in place. A daily feedback system provided information on progress toward goal attainment on big display boards. Top management determined that if employees could increase the number of units produced under the CTO plan by 20 percent at the same quality over a comparable period from the previous year, then the company would improve its productivity and also reduce its operating costs (primarily substantial energy cost savings when equipment was shut down for the remainder of the year). These employees and their supervisors stood to gain additional earned time off with full pay during the Christmas holiday season.

The two manufacturing groups within the plant produced different, but interdependent components of a single unit. After discussion and input from relevant parties, management planned to require each group to produce a set number of components from August through year-end. Further, the groups would have to finish simultaneously so the company could ship complete units. During a meeting to introduce this CTO plan, production workers expressed general approval of the idea but with two major reservations. First, neither manufacturing group had control over the performance of the other. Since the complex assembly operations were different for the two groups, neither could help the other if they fell behind schedule. Also, there was not sufficient time to cross-train workers in both work groups before the plan was to go into effect. Second, they felt that the established production goal would be feasible only if they could obtain the necessary parts. In spite of these reservations, however, both groups decided to attempt to produce at an average daily level which would allow them to have the entire month of December off.

Productivity improved the first week of the program; they met their progress goal. Giant display boards showed daily production figures, fault stickers were used to indicate sources of problems (for example, parts shortages, insufficient manpower). At the half-way point, with the workers still on schedule to meet their goal, one of the components began to show design defects. This had to be solved through engineering changes. Consequently, one of the production lines had to be shut down for two weeks. During the redesign, workers in the affected jobs did what they could to keep production of as many parts as they could on schedule.

After the redesign was completed, the parts needed to support the changes were not immediately available. In addition, accelerated assembly of the other component parts resulted in shortages for these items as well. To remedy these problems, management revised the original production schedule to require the affected group to assemble an additional component to make up the deficit. Understandably, the workers were upset by this decision; they felt they were being penalized for problems beyond their control. Also, toward the end of the project, one of the manufacturing groups finished one week ahead of the other. The finished group had to continue coming to work until the other group finished, and this caused some resentment.

> ***"A contingent time off plan is an informal pact between the company and its employees under which the company agrees to award specific time off if the workers perform at an agreed upon level."***

Despite some of the unforeseen problems, the end result was that the company benefited from a 20 percent increase in productivity over the comparable period the previous year, and the employees earned two additional weeks off with pay plus the usual company week-long Christmas holiday. Although this was a week less than originally projected and the product mix was different, the employees felt very good about the outcome. Quality, as measured by the percentage of assembly errors per employee per month, was already quite good (about 4 percent) before the CTO plan and remained at the same level. In other words, this CTO plan led to a win-win outcome for both the company and its employees in this application.

Reducing safety costs

A CTO plan was recently applied to the safety program at Lockheed Shipbuilding and Construction Company in Seattle. According to Larry Smith, the firm's president, safety (lost workdays due to accidents plus related expenses) was costing the firm $15.15 per $100 of payroll per year.

A CTO plan was developed for the safety program whereby if the employees could reduce safety and lost-time, injury-related costs down equal to, or less than, $5 per $100 of payroll by a specified date, they would earn an additional two days on their regularly scheduled vacations.

The stated safety goal was attained, and the employees received additional vacation time. The company documented the cost savings to be an impressive $4.2 million. This CTO plan also proved to be a win-win strategy.

Successful implementation of CTO

Some of the more important conditions relevant to successful implementation of CTO plans are:

Market demand must be sufficient to absorb increased productivity. In the applications already discussed, high product demand conditions prevailed, which made it beneficial for the companies to increase productivity through a CTO plan. Under adverse demand conditions, a firm may not be able to sell excess units produced, which could result in costly inventory buildups. However, even if it is not feasible to increase output standards, earned time off can still be awarded on the basis of quality improvements which save rework and other costs associated with poor quality or cost reductions in areas such as safety. For example, for every percent decrease in quality rejection rates, then employees would earn a specified amount of time off. Or, for every percent decrease in safety costs, then employees would earn 'X' amount of time off.

Mechanisms must be in place to ensure quality standards are being met. Obviously, increasing quantity of output with CTO is desirable, but without at least maintaining the same level of quality, the net result could be counterproductive. Thus, for successful implementation of a CTO plan, quality must be closely monitored and controlled.

Goal setting and work standards must accompany the CTO plan. The specification of realistic goals and standards is a necessary precondition for the development of an effective CTO plan. Admittedly, as those who have had experience with MBO-type goal setting programs know, this often turns out to be an extremely difficult task for all but the most routine jobs. Yet, as a way to provide a method of measurement and effective feedback to the participants of the CTO plan, goal setting and work standards become a necessary but not sufficient precondition.

Participants must perceive that the goals and standards are reasonable and the time off is equitable. Considerable research in recent years suggests that the goals and standards should be challenging, yet realistic, in order to be optimally effective. If CTO participants do not perceive that the goals and standards are attainable or that the time off rewards are equitable, then the approach will have problems. The way to gain the participants' acceptance is to allow them to actively participate in the formulation of the contingency (if-then) contract.

The attainment of the goals and standards must be reasonably under the control of CTO participants. Part of the CTO plan must include ways for renegotiating goals and standards in the event of adverse or unforeseen conditions beyond the participants' control (for example, inadequate parts availability). The dynamic, interactive nature of most of today's firms require that these mechanisms for modification and change be clearly spelled out ahead of time.

Participants must value earned time off over other incentives such as overtime pay. In some industries (for example, the auto industry), a substantial portion of an employee's take home pay may be obtained through overtime work. CTO plans assume employees value time off more than extra pay. In fact, increased output under a CTO plan may limit the opportunity for overtime work. Then too, some employees simply value the inherent nature of work and may not consider earned time off an incentive.

There must be total commitment and continued support of the contingency contract. Perhaps the greatest problem CTO plans encounter is the "time clock hang-up," the notion that pay is based on hours worked, rather than on performance. Management, unions, and the general public are all susceptible to this kind of rationality. Just as with any other innovative program, CTO should only be tried by those organizations and their top management who are willing and able to devote the necessary time, resources, and, perhaps most important, belief in the premise of CTO. In the first application example discussed, there was a failure to make adequate provisions to insure continued commitment in the event of top management turnover. The contingency contract must be carefully protected in the change-over of management personnel to avoid the disastrous effects of reneging on the contract as happened in the example.

In unionized organizations, their involvement and support must be secured. Many organizations have clauses in their union contracts which could prohibit or constrain a CTO plan. Unions, however, may be very receptive to CTO, particularly in light of current economic conditions, in lieu of wage concessions. At any rate, union representatives should be invited to participate in the initial planning stages and in any subsequent renegotiations of goals or standards that should arise.

If the task requires coordination among interdependent work groups, then all such groups must be included in the CTO plan. In the second application example, employees in the engineering and purchasing support groups were not covered under the CTO plan. Thus, when the design broke down and the parts were not available, there were no incentives for these interdependent groups to provide the necessary support to get production back on schedule. Incentives should also be worked out with suppliers to insure adequate and timely availability of parts.

CTO is not compatible with mandatory staffing requirements over a specified period of time. For example, some government offices are legally required to be open a specified number of hours each work day. If employees in such a setting were under a typical CTO plan, then they would leave the work site after meeting necessary goals/standards. To get around this potential problem, a "time bank" variation could be used. Under the time bank plan, CTO participants could store or accumulate time off credits. Then the participants could use these credits on an alternating basis or as staffing needs permit.

Frequent, preferably daily, feedback on progress toward goal/standard attainment and time earned must be provided. The contingent link between performance and reward is greatly enhanced when objective feedback is provided as immediately as possible. Even if the CTO plan does not call for earned time off on a daily basis, the participants should still receive daily reports on progress toward goal attainment and the amount of time off credits earned to date. It is becoming increasingly clear that the length of elapsed time between performance and reward in most incentive systems, such as profit sharing plans, is much too long for employees to perceive a strong link between performance and reward. This linkage, of course, is the very essence of the successful implementation of CTO.

Guidelines for successful implementation. Besides the recognition of general conditions needed for successful implementation of CTO plans, there are also a few brief guidelines that can help in the actual application process:

- Consider hiring a consultant who is familiar with potential problems to assist in the design and implementation of a CTO plan, even though primary responsibility for development and application must rest with the organization itself.
- Once a decision has been made to adopt a particular CTO plan, advise participants on its features, mechanics of operation, and benefits to both the company and themselves.
- Since both management and participant commitment to the CTO plan is critical to its success, taking an actual vote on the CTO plan may help.
- Establish a trial period for the CTO plan which alleviates everyone's concerns about the reality of the goals/standards set and that management will deliver time off as promised. At the end of the trial period goals and standards may be reviewed and renegotiated.
- Periodic review dates should be established to keep all participants informed and to solicit input regarding potential problems and solutions.

As with any incentive system, CTO must be "tailor made" to fit each organization's needs and constraints. Earned time off, for example, can be structured on an organization-wide, group, or individual level. The time off can also be allocated on a daily, weekly, monthly, or annual basis. A system of time bank credits for future withdrawals can be devised. Credits can also be given or taken away based on absenteeism or error rates. In short, there is a cafeteria of options available to structure CTO plans. The plans will vary depending on the company, conditions in the internal and external environment, financial constraints, nature of the task, and the employees involved. ●

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ORGANIZATIONAL DYNAMICS

A Social Learning Approach To Behavioral Management: Radical Behaviorists "Mellowing Out"

Robert Kreitner
Fred Luthans

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In this article, the authors present an expanded model of organizational behavior modification that incorporates insights from social learning theory. This new approach draws from interaction among situation, person, behavior, and consequence components.

A Social Learning Approach To Behavioral Management: Radical Behaviorists "Mellowing Out"

Robert Kreitner
Fred Luthans

The adage that "there is nothing as practical as a good theory" seems particularly relevant to the management of human resources in today's organizations. A good behavioral theory can help contemporary managers solve productivity problems, meet the challenge of foreign competition, and prepare subordinates for dramatic changes in the workplace now and in the future. Unfortunately, the theorizing about organizational behavior to date has produced a confusing array of normative prescriptions and techniques that fragment rather than integrate managers' approaches to getting the most out of their peo-

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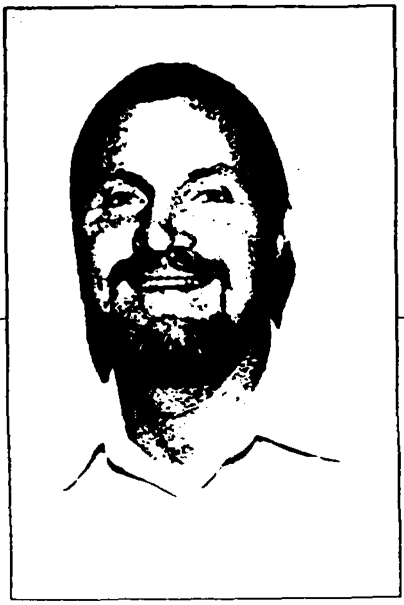

Robert Kreitner *is a professor of management at Arizona State University. After a four-year tour of duty in the U. S. Coast Guard (including service on the icebreaker, EASTWIND, in Antarctica), he earned B.S. and M.B.A. degrees from the University of Nebraska-Omaha and a Ph.D. from the University of Nebraska-Lincoln. Prior to joining ASU, he taught management overseas (Micronesia) and at Western Illinois University.*

He co-authored (with Fred Luthans) the widely referenced book, Organizational Behavior Modification *(Scott, Foresman, 1975), that was honored with the Outstanding Human Resource Management Book Award for 1975 by the American Society for Personnel Administration. A second edition of this book will appear in 1985 under the title,* Organizational Behavior Modification and Beyond: An Operant and Social Learning Approach. *Kreitner's* Management *(2nd edition, Houghton-Mifflin, 1983), is a leading text in the principles of market management. He has written numerous articles within the field of organizational behavior that have appeared in such journals as* Business Horizons, Journal of Organizational Behavior Management, *and* Personnel Journal.

He is past chairman of the Management Education and Development Division of the National Academy of Management. Professor Kreitner has conducted many management training and development sessions pertaining to organizational behavior modification, human resources management techniques, and wellness/stress management for a wide variety of organizations, including U.S. Steel, Honeywell, Amdahl, U. S. Bureau of Indian Affairs, State Farm Insurance Companies, and Goodyear Aerospace.

ple. Instead of a general understanding of human behavior in organizations, managers have a diffuse collection of competing and often contradictory theories. Today's performance-conscious managers need *practical* theories of organizational behavior: theories that provide answers as well as approaches and techniques *that work*.

Today, most large companies and an increasing number of organizations in the nonprofit sector have devoted considerable time and resources to general approaches to executive development, socialization, and organization development. Where they have been carefully implemented, these efforts have had a positive impact. Yet the results are usually substantiated with vague observations ("improved climate," "people seem to get along better," or "we now work as a team") rather than with hard facts about improved quantity and quality of work or decreased absenteeism and tardiness. A practical theoretical framework and specific behavioral change techniques that can be used at all levels in all organizations are missing from most existing human resources management programs. This article presents such a framework, together with specific techniques that managers can use to change their people's and their own performance behaviors.

Toward a More Practical Theory of Organizational Behavior

We are said to be living in an age of synthesis, a time when emphasis has shifted from analyzing isolated details to studying the whole picture. Although we have learned a great deal by taking things apart and analyzing them, much remains to be understood about complex interrelations in phenomena such as the human body, organizations, and

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A consulting co-editor for the McGraw-Hill Management Series, Professor Luthans is also on the editorial boards of a number of journals Currently president-elect of the Academy of Management he will become president in 1986 He is an active consultant and conducts workshops on behavioral management both in this country and abroad

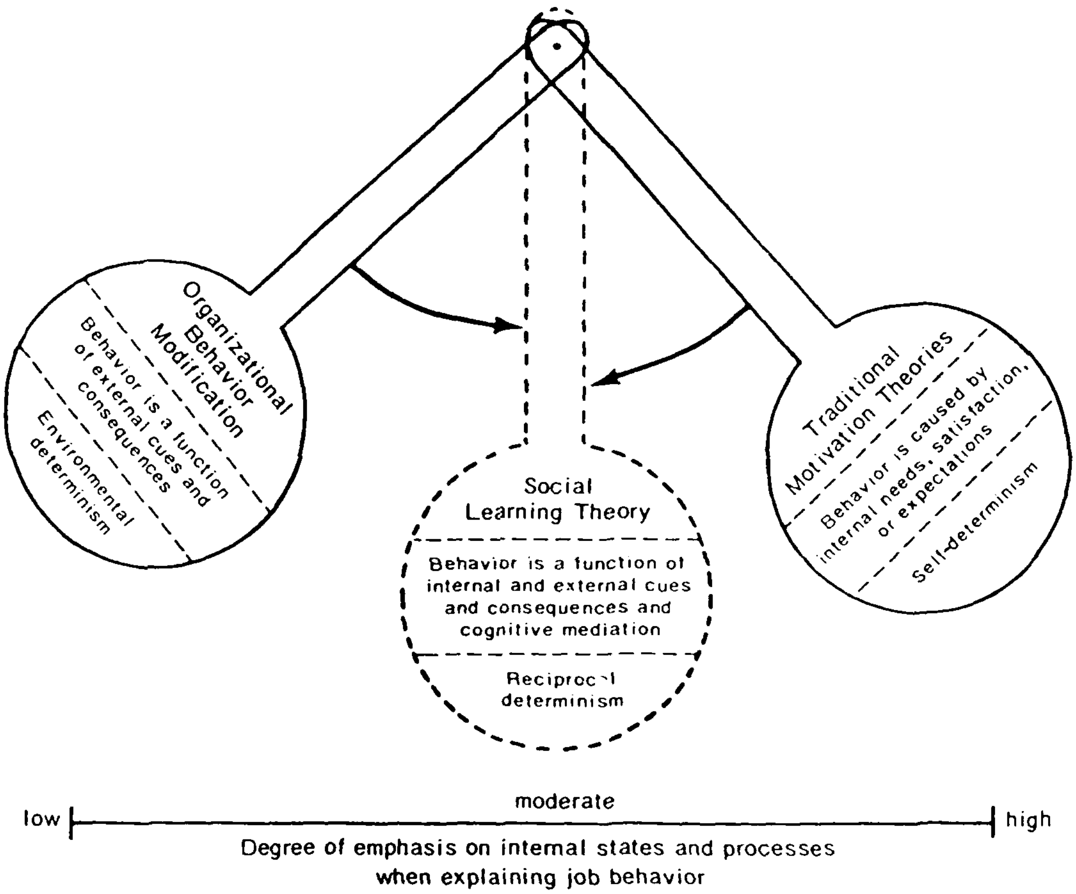
ecosystems; for example, it is difficult to fully appreciate a day at the beach by staring at a single grain of sand. There comes a time in every discipline when essential pieces of information need to be synthesized into meaningful wholes. Many areas of management have already moved in this direction: strategic planning, manufacturing-resources planning, and career planning are some examples. Unfortunately, human resources management lags in this regard; a bits-and-pieces approach and conflicting models are still commonplace in this field.

An overview of the conceptual development of organizational behavior quickly reveals that analysis has been emphasized to the near exclusion of synthesis. As indicated on the right-hand pendulum of Exhibit 1, traditional motivation theories have long been preoccupied with a host of complex internal causes of behavior such as needs, satisfaction, and expectations. Then, about a decade ago, we suggested a significantly different model of organizational behavior carrying the label *organizational behavior modification* (O.B. Mod.). This alternative perspective was anchored in B. F. Skinner's technology of operant conditioning and his underlying philosophy of radical behaviorism. The original conceptualization of O.B. Mod. was to make specific, on-the-job behavior occur more or less often by systematically managing *antecedent conditions* (that serve to cue the target behavior) and/or by managing *contingent consequences* that serve to encourage or discourage repetition of the target behavior. Unlike the then popular motivation theories that dealt with unobservable internal states, the external O.B. Mod. approach suggested that managers should focus on actual behavior and on factors in the environment that controlled behavior.

Both the internal and external theories of organizational behavior have made contributions to understanding and managing employees. Those who wish to manage employee behavior need to consider relevant cognitive processes such as expectations and attributions in addition to such internal states as needs and satisfaction. Similarly, behavior and its environmental cues and consequences should be considered. But because internal and external theorists alike have focused too much on analysis and not enough on synthesis, a realistic picture of employee behavior

Exhibit 1

CONCEPTUAL PENDULUM OF ORGANIZATIONAL BEHAVIOR


Organizational Behavior Modification
Behavior is a function of external cues and consequences
Environmental determinism
Social Learning Theory
Behavior is a function of internal and external cues and consequences and cognitive mediation
Reciproc·l determinism
Traditional Motivation Theories
Behavior is caused by internal needs, satisfaction, or expectations
Self-determinism
low
moderate
high
Degree of emphasis on internal states and processes when explaining job behavior

still has not emerged. Neither the internal nor the external perspective, taken alone, gives a complete picture of why employees behave as they do; more important from a managerial standpoint, neither provides adequate guidelines for improved performance at all levels of modern organizations. This is why *social learning theory*, the middle position in Exhibit 1, provides both an academically sound framework for research and a practical framework for improved human performance at work.

In taking a social learning perspective, we are not abandoning objective, observable behavior as the primary unit of analysis. However, cognitive processes that result in expectations, self-evaluative standards, and causal attributions will be used to explain how employee behavior is acquired and maintained. Covert (or internal) cues, behavior, and consequences all play an important role. It is our hope that the social learning approach will lead to a comprehensive understanding and better practical control of today's human resources. Before exploring the particulars of this new approach, however, a brief review of the O.B. Mod. approach is necessary.

CONTRIBUTIONS OF O.B. MOD.

Organizational behavior modification (also known as applied behavior analysis and organizational behavior management) seems to have had a considerable impact on human resources management during the past decade. O.B. Mod.'s primary contributions are (1) emphasis on observable employee behavior; (2) recognition of the impact that contingent consequences have on performance; (3) recognition that positive reinforcement is more effective than punishment when managing employees; and (4) a demonstrated, causal effect on the bottom-line performance of employees working in a wide variety of organizations.

Behavior Is the Key

By making instances of *behavior* the primary units of analysis, O.B. Mod. has encouraged human resources managers to deal with something they can see, record, and later use to measure progress. Managing behavior is much more useful than dealing with inferred internal states, when the aim is to improve the quantity and quality of work. For instance, which of the following managers has a better chance of affecting job performance: manager A, who says, "Joe has a bad attitude; he better shape up or ship out!" or manager B, who says, "Joe has failed to use the new computerized work station for six different tasks this week"? By pinpointing a specific behavior problem, manager B has the comparative advantage. This behavioral orientation is gaining popularity in other areas as well. For example, behaviorally anchored rating scales (BARS) are recommended for performance appraisal.

Consequences Influence Behavior

The basic premise of O.B. Mod. has been that behavior is a function of its consequences. For managers preoccupied with cognition (internal processes connected with needs, valences, or expectations), the notion of focusing on contingent environmental consequences to explain behavior is quite foreign. Yet everyday experience confirms the influence of contingent consequences. For example, busy executives give difficult assignments to their best people because they want quick results. These overworked middle managers soon learn that being a go-getter doesn't pay off, so they cut back. A manager familiar with the relationship between consequences and behavior would realize that the assignment of extra work is punishing rather than reinforcing and may bring about a decline in performance.

Behavior that is reinforced either positively (something desirable is presented) or negatively (something undesirable is withdrawn) tends to be repeated. On the other hand, behavior that is ignored or punished (something undesirable is presented, or something of value is withdrawn) tends to be replaced by behavior that pays off. As the previous example of the go-getter illustrates, the haphazard management of behavioral consequences can detract from rather than improve job performance and goal attainment.

Taking a Positive Approach

How can we improve employees' performance as well as enhance their dignity and feeling of self-worth? O.B. Mod.'s method is to increase desirable behaviors (those that contribute to goal attainment) with positive reinforcement instead of decreasing undesirable behaviors (those that diminish goal attainment) with punishment. Positive reinforcement, a term rarely heard in executive boardrooms and management circles a decade ago, has become a widely known technique. Popular books like *In Search of Excellence* and *The One Minute Manager*, which extol the virtues of positive reinforcement, have been labeled mandatory reading by enlightened executives.

Desirable and undesirable behavior (for example, being prompt versus being tardy) are reciprocal sides of the same coin; only one side can show at a time. The manager who positively reinforces desirable behaviors among employees eventually achieves the same performance improvement that the punitive manager seeks, but without the erosion of trust and goodwill and without any attendant fear, suspicion, and revenge.

One does not have to go far to uncover horror stories about punitive managers. For instance, a field sales representative recently told us how his manager had tried to "motivate" people by making the low seller for the month take home a live goat for a weekend. The implication was that the laggard was "goat of the month," and the hope was that the unfortunate employee, embarrassed by questions from neighbors and relatives, would be bullied into improved performance. Of course, the manager's punitive approach precipitated mistrust and turnover but failed to improve sales. Taking an O.B. Mod. approach, the sales representative convinced his boss to institute a pilot program of positive reinforcement (a small cash bonus) for a specific behavior (calling the office three times a day). Significant positive results were achieved immediately. A desirable side-effect was that people felt better about themselves, their boss, and the company.

Impact on Performance Behaviors

Unlike most approaches to human resources management, O.B. Mod. has been demonstrated to have a *causal* impact on the performance behaviors of employees in a wide variety of organizations. Starting with the widely publicized Emery Air Freight experience, there have been a growing number of reported successful applications of O.B. Mod. Some of these reports are based on anecdotal or testimonial evidence – for example, the Emery Air Freight experience and most of the applications described in the recent *Handbook of Organizational Behavior Management* – but sophisticated research also shows the impact of O.B. Mod. in areas such as employee productivity, absenteeism, tardiness, safety, and sales.

Along with a number of colleagues,

we focused our own research in the past ten years on the application of O.B. Mod. in manufacturing plants (small, medium, and large), retail stores, and hospitals as well as on a number of individual managers using self-management at every level in many kinds of organizations. Using such experimental designs as control groups, reversal, and multiple base lines, we found that O.B. Mod. had a dramatic, positive impact on the quantity and quality of output in manufacturing plants, on the sales performance and absence from the work station of department store clerks, and on a host of hospital performance measures, both medical (procedures accomplished, patient throughput, retake rates, posting or filing errors) and nonmedical areas (average time to repair, product waste, time to admit, and systems log-on time).

Experimental research studies have shown that executives using self-management techniques can deliberately alter their own behaviors in the areas of notifying someone when leaving the office, depending upon the boss to make decisions, spending time on the phone, filling out daily expense forms, writing a plan, following a plan, reducing stress, processing paperwork, and meeting deadlines. It has been amply demonstrated that O.B. Mod. does improve performance at different levels and in different types of organizations.

Limitations of the O.B. Mod. Model

Although the O.B. Mod. model produces positive results, it does have two limitations: (1) it excludes important cognitive processes; and (2) it does not treat the influence of antecedents on behavior. The first limitation much more than the second has led critics to call O.B. Mod. mechanistic and to question its long-term value as a realistic approach to human resources management.

Exclusion of Cognitive Processes

According to Skinner, the search for inner causes of behavior merely distracts one from identifying the environmental factors that are actually responsible for directing, shaping, and altering behavior. On the other hand, cognitive theorists insist that any theory of human behavior is deficient if it does not take into account a person's unique ability to remember, anticipate, and symbolize. After all, they argue, we are not empty-headed automatons blindly reacting to environmental stimulation. We perceive, judge, and choose; hence any approach to behavioral management should take these cognitive processes into account.

Ignored Antecedents of Behavior

Unlike the first limitation, the second limitation has been pinpointed by O.B. Mod. advocates. They note that environmental consequences have been emphasized to the near exclusion of antecedents or cues. In the original formulation of O.B. Mod., we used the three-term contingency, A → B → C (antecedent leads to behavior leads to consequence) to assist the manager in analyzing employee behavior. The antecedent in this model serves as a cue prompting the person to behave in a given way. Yet the behavior is still a function of its contingent consequence. But antecedents cue specific behavior through their association with contingent consequences. When walking down the hall at work, for example, we stop to chat with those who say things that please us and avoid those who are unpleasant. All things considered, antecedents deserve much more attention because they exercise potent *feedforward* control over a great deal of employee behavior. Extending O.B. Mod. with social learning theory overcomes these limitations of our model.

SOCIAL LEARNING THEORY

When Albert Bandura, Stanford's noted behavioral psychologist, was conducting his pioneering experiments on vicarious learning, he became convinced that cognitive functioning must not be overlooked in explaining complex human behavior. He observed that mental cues and memory aids help people learn and retain behavior more efficiently than trial-and-error shaping. This challenged operant conditioning as well as radical behaviorism. A practical example of Bandura's position is the salesperson who relies on a mental image of an apple to remember Applegate, the name of a prospective client. In Bandura's view, this way of learning is more efficient than rote memorization of clients' names in a structured training session. But, unlike the radical cognitive theorists, Bandura gives a great deal of weight to the impact of environmental cues and consequences on actual behavior. Bandura and others such as Michael Mahoney, Donald Meichenbaum, and Walter Mischel have formulated social learning theory, a theory of behavior that takes into account intrapersonal and environmental determinants.

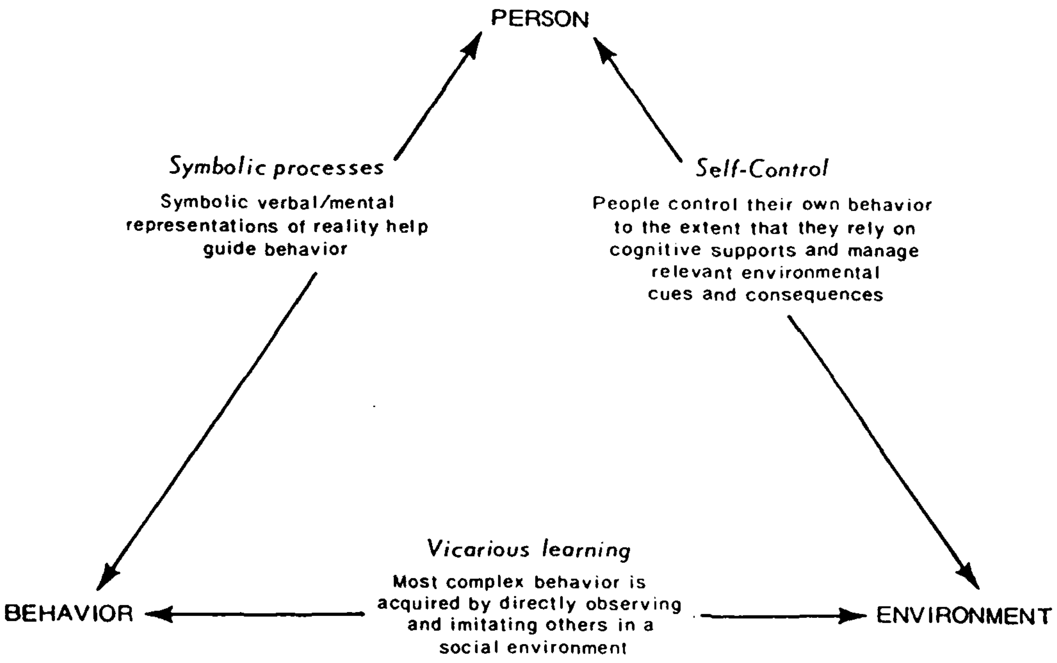
The notion that behavior is a function of both personal and environmental factors appeared in original formulations of the social psychology of Kurt Lewin and others. Today's social learning theorists, however, stress that behavior itself (ignored by traditional social psychologists) as well as cognitive processes and environmental factors are *reciprocal determinants*. This describes a dynamic relationship in which the person neither mechanistically reacts to environmental forces nor exercises unrestricted free will. In the social learning approach, people influence their environment, which in turn influences the way they think and behave. Exhibit 2 is a summary model of the dimensions and relationships of social learning theory (SLT).

Definition of Social Learning

Social learning refers to the fact that we acquire much of our behavior by observing and imitating others within a social context. This is not a one-way flow of influence. According to social learning theory, people's behavior and environment influence each other. For example, at a societal level we are held accountable for obeying unpopular laws until we elect officials who will repeal or amend them (the military draft), practice civil disobedience in order to influence legislators to change laws (Civil Rights Movement), or rise up in revolt (the Boston Tea Party). Inherent in this complex social equation is the reciprocal influence of our behavior, our cognitive

Exhibit 2

A Basic Model of Social Learning Theory


PERSON
Symbolic processes
Symbolic verbal/mental representations of reality help guide behavior
Self-Control
People control their own behavior to the extent that they rely on cognitive supports and manage relevant environmental cues and consequences
Vicarious learning
Most complex behavior is acquired by directly observing and imitating others in a social environment
BEHAVIOR
ENVIRONMENT

processes, and our social environment. Sometimes individual behavior prevails; at other times the environment prevails. Meanwhile, people perceive, judge, choose, and exercise a measure of self-control.

For modern managers who are disenchanted with traditional behavioral theories, Bandura's portrayal of SLT is particularly helpful because it improves on popular work motivation theories and extends operant learning theory. Although traditional work motivation theories (like Abraham Maslow's needs hierarchy) do address the employee's need for social interaction, they fail to explain the nature of that interaction. SLT improves upon the traditional theories by assigning a prominent role to vicarious or observational learning. Similarly, SLT extends the operant model of learning – what we have called the external approach – by explaining how the individual processes environmental stimuli. This helps us understand why similar employees in similar situations often behave quite differently; the operant model is limited in its ability to explain such variations.

SLT also is quite different from work-motivation and operant-conditioning theories because it gives attention to three important processes: vicarious learning or modeling, symbolism, and self-control. By understanding the roles these three processes play in the reciprocal triangle illustrated in Exhibit 2, managers can begin to appreciate how social learning theory integrates the internal and external approaches in a way that translates into improved techniques for managing human resources.

Effectiveness of Modeling

Vicarious learning and observational learning are alternative labels for the modeling process of acquiring new behavior within the SLT framework. When compared with tedious operant shaping whereby someone is systematically reinforced for approximating a desired behavior (a machine operator is complimented by the supervisor for getting progressively closer to tolerance), modeling is much more efficient. Complex behavior can be learned quickly through this process. In fact, organizational participants, especially in the executive and managerial ranks, probably acquire far more behavior by observing and imitating behavior models than by trial-and-error shaping. Research shows that people tend to imitate models with whom they personally identify (consider the use of outdated training films). Moreover, modeled behavior that pays off with a desired consequence tends to be readily imitated (consider a "do-as-I-say, not-as-I-do" management style). There is also evidence that modeling is valuable in teaching sales techniques and other skills that were traditionally believed to be intuitive or to stem from years of experience.

Use of Symbolism

According to SLT, verbal and mental symbolism helps people to organize and store convenient representations of reality. For instance, the mnemonic phrase "red – right – returning" has reminded generations of sailors that vessels returning to port from sea should keep the red buoys on their right-hand side to avoid running aground. Furthermore, it is more efficient and in some cases safer to imagine solutions to problems and to anticipate consequences to actions than to experience everything firsthand. For today's harried executives, imagining the consequences of a stressful and unhealthy life style and taking appropriate preventive steps is certainly a better solution than experiencing a heart attack. Values, goals, beliefs, and rules are convenient symbolic guideposts for appropriate behavior. With this information, executives are challenged to systematically and proactively manage their own and others' symbolic coding and processing rather than simply to leave matters to reaction and chance.

Role of Self-Control

According to SLT, people can control their own behavior if they can cue it, support it, and reward or punish it. In other words, to the extent that we can manage our environment and cognitive processes, we can manage our own behavior. For example, an overweight manager who is tempted to eat a between-meal snack might think of how nice a new, smaller outfit would look and feel. And eliminating all snacks from the immediate work area or offering only low-calorie ones would be a helpful way of altering the environment. Eventually, when the weight goal is reached, purchasing and enjoying the new outfit will be very rewarding.

Beyond the O.B. Mod. Model

As stated earlier, the original model for O.B. Mod. utilized the A → B → C contingency. In this operant paradigm, environmental antecedents (A) were said to cue behaviors (B) that were then followed by positive or negative contingent consequences (C) in the environment. Then, according to the law of effect, a supportive, positive environment increased the frequency and magnitude of behavior whereas unsupportive, negative consequences discouraged behavior. In this model we characterized effective behavioral management as the appropriate arrangement of supportive environmental antecedents and consequences.

Now, by merging the time-honored, cognitive situation-organism-behavior contingency (S-O-B) with the operant A-B-C contingency, we have derived an S↔O↔B↔C model. This expanded model for O.B. Mod. (shown in Exhibit 3) clearly reflects the influence of social learning theory because of the interaction among the situation, organism, behavior, and consequence components. A one-way, linear flow of influence lacks the dynamic interaction emphasized by SLT. It is important to recognize that even in this expanded model, overt behavior remains the primary unit of analysis, but the mediating effects of cognition along with covert cues, behavior, and consequences are now taken into consideration.

In Exhibit 3, three cognitive mediating processes are listed under the Organism portion of our expanded O.B. Mod. model. These are goal acceptance/rejection, expectations, and causal attributions. Because each of them serves as a highly personalized gatekeeper that determines which cues and consequences will prompt which particular behavior, and because they were not part of the original O.B. Mod. model, we will examine them closely.

Goal acceptance/rejection. Goals and goal setting have been a central feature of management theory and practice since Peter Drucker coined the term "management by objectives" (MBO) 30 years ago. Researchers like Edwin Locke have proved time and again that people who have goals or objectives (preferably difficult and measurable ones) consistently outperform those who have no goals and those who are instructed to do their best. Nevertheless, conflicting research findings on goal setting still crop up, and MBO is known as both a failure and a success. From a behavioral perspective, a major stumbling block for MBO programs may be goal rejection at the individual level. An imposed goal, no matter how well conceived, is the property of the organization until the individual personally adopts it. To date, the most popular prescription for encouraging members of an organization to accept its goals is to have them help set the goals. Therefore we have included *opportunity to participate in goal setting* as a goal cue under the situation portion of the S-O-B-C model (the expanded O.B. Mod. model).

Expectations. Largely due to the popularity of Victor Vroom's and Lyman Porter and Edward Lawler's expectancy models of work motivation, the concept of expectations is fairly well established in the behavioral-management literature. In terms of probabilities, expectations vary from a low of zero (no chance) to a high of one (virtual certainty). Expectations influence how managers behave and make decisions (e.g., "Will I get a bonus this year so I can buy a new car?" "How will the new electronic office system affect my job?" "Will the new director of personnel significantly change our staffing or training policies?").

Expectancy motivation theorists carefully distinguish between effort-performance expectations and performance-reward expectations. Taking a social learning perspective, Bandura has labeled the former type *efficacy* expectations and the latter type *outcome* expectations. For example, salespeople have high efficacy expectations if they firmly believe that they are capable of closing an important sale and high outcome expectations if they believe that closing an important deal will lead to desired rewards like pay raises or promotions. Thus, high efficacy and outcome expectations are prerequisites for effective employee performance. The S-O-B-C model is intended to help managers to systematically understand and use such expectancies instead of considering them out of context or ignoring them altogether.

Causal attributions. It is becoming increasingly clear that people have self-serving cause-and-effect models in their heads which greatly affect the way they behave. Common experience and research show that people tend to attribute successes to their ability ("I solved the problem with the new data processing program") and/or effort ("I worked hard to get the new system implemented") and failures to their bad luck ("Murphy's Law was in operation") and/or task difficulty ("there's no way to work out the bugs in this crazy program"). People who generally attribute success and failure to their own actions have an *internal* locus of control; those with an *external* locus of control generally attribute success and failure to factors beyond their control. Of course, differing attributions will affect how employees interpret and respond to cues. For example, a training film demonstrating how to use a microcomputer would probably be imitated more readily by a person who believes that ability is the key to success than by one who believes that success depends upon luck. Like goal acceptance/rejection and expectations, causal attributions are subtle but powerful cognitive gatekeepers that facilitate or hamper S-O-B-C reciprocation.

NEW O.B. MOD. TECHNIQUES FOR IMPROVING PERFORMANCE AT WORK

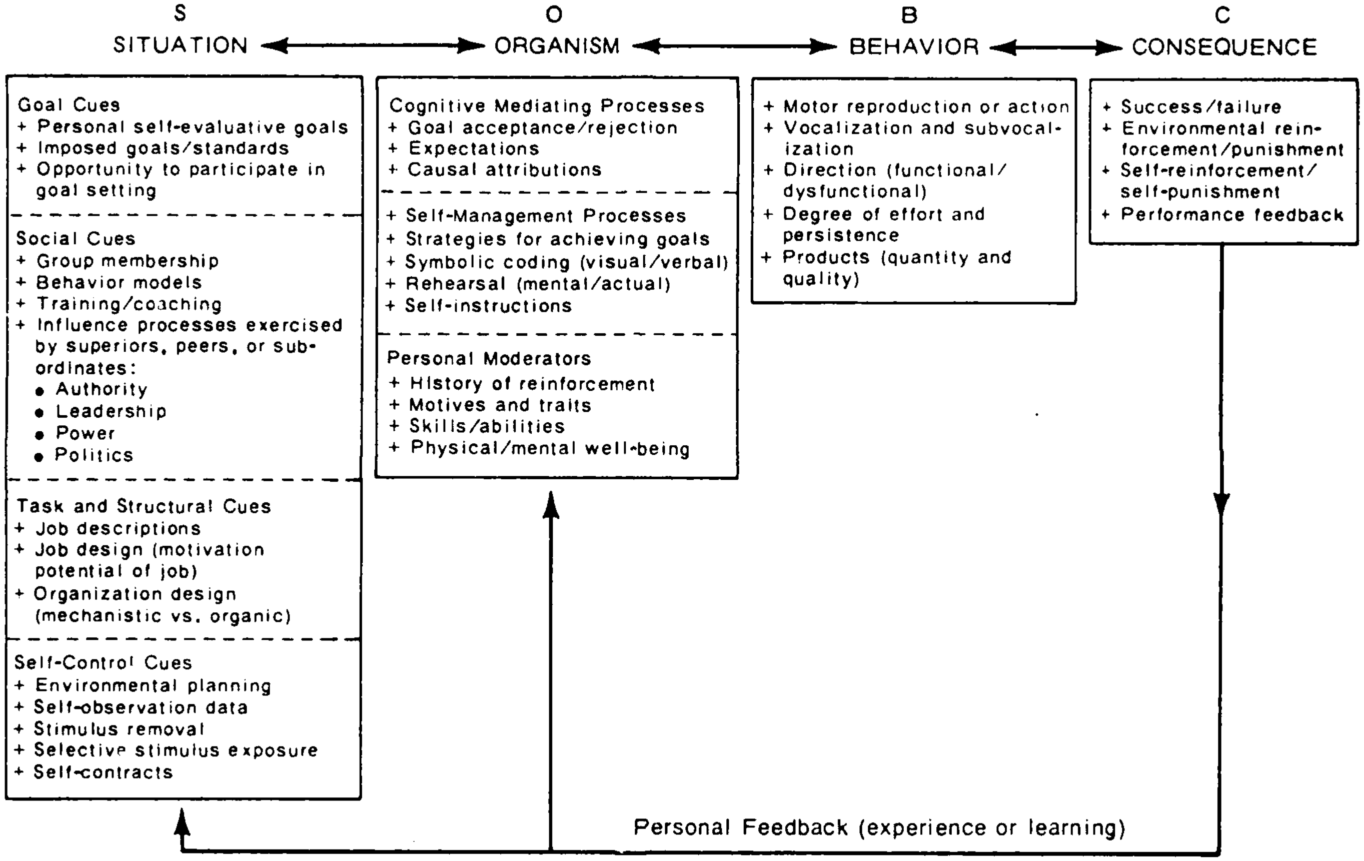
The insights gained from social learning theory and the S-O-B-C model will be used to examine some specific, new O.B. Mod. techniques for improving performance at work: feedforward control, feedback control, and self-management. Although elements of self-management could be subsumed under feedforward and feedback control, self-management deserves separate attention because it is a cornerstone of the social learning extension of O.B. Mod.

Feedforward Control and Management of Employee Behavior

Managers have two ways to turn plans into action: (1) they can wait for problems to arise and then try to correct them (a reactive ap-

Exhibit 3

EXPANDED MODEL FOR ORGANIZATIONAL BEHAVIOR MODIFICATION (S-O-B-C MODEL)*


S
SITUATION
O
ORGANISM
B
BEHAVIOR
C
CONSEQUENCE
Goal Cues
+ Personal self-evaluative goals
+ Imposed goals/standards
+ Opportunity to participate in goal setting
Social Cues
+ Group membership
+ Behavior models
+ Training/coaching
+ Influence processes exercised by superiors, peers, or subordinates:
• Authority
• Leadership
• Power
• Politics
Task and Structural Cues
+ Job descriptions
+ Job design (motivation potential of job)
+ Organization design (mechanistic vs. organic)
Self-Control Cues
+ Environmental planning
+ Self-observation data
+ Stimulus removal
+ Selective stimulus exposure
+ Self-contracts
Cognitive Mediating Processes
+ Goal acceptance/rejection
+ Expectations
+ Causal attributions
+ Self-Management Processes
+ Strategies for achieving goals
+ Symbolic coding (visual/verbal)
+ Rehearsal (mental/actual)
+ Self-instructions
Personal Moderators
+ History of reinforcement
+ Motives and traits
+ Skills/abilities
+ Physical/mental well-being
+ Motor reproduction or action
+ Vocalization and subvocalization
+ Direction (functional/dysfunctional)
+ Degree of effort and persistence
+ Products (quantity and quality)
+ Success/failure
+ Environmental reinforcement/punishment
+ Self-reinforcement/self-punishment
+ Performance feedback
Personal Feedback (experience or learning)

*Source: Fred Luthans and Robert Kreitner, *Organizational Behavior Modification and Beyond: An Operant and Social Learning Approach*

proach); or (2) they can anticipate problems and take preventive action (a proactive approach). Feed*back* control is the term commonly applied to the first approach; the second approach can be labeled feed*forward* control. Feedforward control is acknowledged to be the better approach because it encourages managers to act in anticipation of rather than in response to a problem. Feedforward control makes it easier to prevent grievances, equipment breakdowns, and defects in goods or services. In the expanded O.B. Mod. approach, managers can exercise feedforward control over employee performance by systematically managing goal cues, social cues, and task and structural cues (see *Situation* in Exhibit 3). A supportive situation will increase the chances that the job will be done right the first time.

Goal cues. Employees with challenging and measurable goals tend to outperform those without goals. Social learning theorists have pointed out that a personal goal serves not only as a target for performance but also as a basis for assessing progress. Unfortunately, personal goals and organizational goals in complex organizations are often at odds with one another. This means that organizations must impose at least some goals on employees. Consequently, participation in goal setting is important because it increases the chances of goal acceptance. Managers and executives should encourage their people to set their own performance goals and accept imposed goals by having them participate. If these personal or participative goals are measurable in behavioral terms, they will serve as the focal point for the entire S-O-B-C process.

Social Cues. Because members of organizations acquire much of their behavior by observing others (social learning), managers can ensure that these people are exposed to constructive rather than destructive behavior models. Transferring a potentially productive employee away from the influence of troublemakers is an obvious way of rearranging the social cues. More formal feedforward control of employee performance can be achieved by incorporating modeling into training programs. Training programs based on observation of behavior models, structured practice of specific behaviors, and positive reinforcement for successful imitation have proved much more effective than lectures or discussions.

Every manager is a powerful behavior model for subordinates, regardless of

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> *"A unique contribution of social learning theory is its emphasis on self-management. This bottom-up approach stands in marked contrast to our conventional, top-down theories of management."*

his or her intentions or desires. "Do-as-I-say, not-as-I-do" managers need to learn the truth of the American Indian lament: "What you do speaks so loudly that I cannot hear what you say." Executives and managers influence subordinates when they exercise authority, leadership, and power. A manager who smokes while leaning against a no-smoking sign but tries to enforce smoking policies loses credibility. High-level Japanese managers who roll up their sleeves and pitch in when necessary understand the value of a "do as-I-do" approach.

Task and structural cues. A healthy measure of feedforward control can be exercised by making sure that employees have a clear idea of what is expected of them. In addition to measurable objectives, clear and concise job descriptions can get employees headed in the right direction. Beyond that, the motivating potential of the work itself can be enhanced through progressive job design. As researchers have pointed out in recent years, meaningful jobs that offer a sense of personal responsibility and knowledge of results tend to cue better performance than do fragmented, boring, and repetitious jobs. Moreover, as it has been forcefully pointed out by the best-selling book, *In Search of Excellence*, employees who desire creative latitude will respond more favorably to fluid and flexible organic structures than to rigid, bureaucratic, mechanistic structures.

Maintaining and Improving Behavior through Feedback Control

The influence of social learning in the expanded O.B. Mod. model is clearly evident in the preceding discussion of feedforward control. Social learning places much emphasis on situational cues. These cues prompt desirable behavior by enhancing goal acceptance, raising efficacy and outcome expectations, and personalizing causal attributions. On the other hand, feedback control reflects the influence of Skinner's operant conditioning, which emphasizes that behavior is a function of its consequences. Feedback control of employee behavior involves the systematic management of consequences.

Four primary sources of consequences are listed in the consequence portion of Exhibit 3. Success, positive reinforcement from relevant others, self-reinforcement, and constructive performance feedback all strengthen behavior. Similarly, behaviors that fail or that are punished or ignored by relevant others, self-punished, or followed by negative or inadequate feedback on performance are weakened. Managers are challenged to arrange, within an S-O-B-C framework, a supportive consequence climate for productive behavior. Good intentions are insufficient, and productive behavior that is ignored or not rewarded eventually gives way to counterproductive behavior that has more immediate payoffs for the individual. Kenneth Blanchard and Spencer Johnson, in *The One Minute Manager*, underscore positive reinforcement in managing behavior when they say, "catch employees doing something *right*." This is feedback control through positive reinforcement.

The Use of Self-Management

A unique contribution of social learning theory is its emphasis on self-management. This bottom-up approach stands in marked contrast to our conventional, top-down theories of management. Managing has traditionally been conceptualized and practiced as something a superior *does to* an organization, a group, or a subordinate. The attention that leadership theories have received throughout the years clearly shows the entrenchment of this top-down bias. Even the so-called democratic or participative leadership styles fail to break out of the top-down rut because they imply that management *lets* subordinates participate only if and when it is convenient.

The S-O-B-C model is an alternative: it includes a system of cues, cognitive processes, and consequences that help people manage their own behavior. We believe that self-management is the most efficient form of management because it precludes the need for costly, close supervision. With this in mind, let's take a closer look at the ways that managers can use self-control cues, self-management processes, and self-reinforcement/self-punishment.

Self-control cues. Members of organizations can do a number of things to create a physical/social environment that cues their own desirable behavior and discourages unwanted behavior. This *environmental planning* can take the form of one or a combination of the following techniques.

1. Self-observation data: By observing and recording how often a target behavior occurs, a participant can accomplish two things: (1) obtain an objective measurement of the behavior, and (2) formulate a self-management plan. For example, a manager who is always "putting out fires" and never seems to get anything done might find it instructive to keep track of interruptions by unscheduled phone calls. Hard data would permit an objective assessment of the problem and provide a rationale for schedule adjustments.

2. Stimulus removal: This self-management technique involves the removal of cues that prompt unwanted behavior. For instance, an engineer who is given to daydreaming may find it helpful to remove pictures of family members or favorite vacation spots and other distracting stimuli from the work area.

3. Selective stimulus exposure: Instead of eliminating a disruptive cue from the environment, one can fall back on selective exposure. A manager who is disrupted by unscheduled visits because of an unrestricted open-door policy, for example, might trim the open-door period to a stated hour in the morning and in the afternoon. Similarly, disruptive phone calls can be channeled through a secretary or an answering device.

4. Self-contracts: A self-contract is an if-then deal with oneself. For instance, an executive might hold off working on a preferred project until a less preferred one is completed. Self-contracts and personal goal setting go hand in hand.

Self-management processes. From a social learning perspective of O.B. Mod. there are four cognitive processes that can facilitate self-management.

1. Strategies for achieving goals: Goal setting is a recognized prerequisite of effective management, but strategies and action plans need to be formulated if goals are

to become reality. Managers at all levels can enhance their self-management skills by systematically considering strategies and formulating action plans aimed at accomplishing their self-improvement goals.

2. Symbolic coding: Visual and verbal codes can help people remember things of importance. A mental image of a newspaper picture showing someone injured, for example, could serve as a reminder to take out additional employee accident insurance. As a verbal code phrase, like "Monday/Fun day" might remind a manager who is driving home on Friday to file a budget request on Monday.

3. Rehearsal: Whether covert or overt, rehearsal of desired behavior prepares managers to deal with unfamiliar situations. It is no accident that successful salespeople anticipate customer questions or complaints and mentally rehearse replies. Practice, both in one's thoughts and in reality, is a cornerstone of successful selling and other crucial management skills (dealing with problem employees, or selling middle managers on a new idea).

4. Self-instruction: Cognitive supports in the form of self-instruction can help managers do the right thing at the right time. Many stress-management programs encourage executives to use self-instruction that prompts them to relax, slow down, do one thing at a time, and stick to priorities.

Self-Reinforcement/Self-Punishment

Both covert and overt behaviors need positive consequences if they are to be sustained and strengthened. When combined with the techniques just discussed, self-granted rewards can lead to self-improvement. But as failed dieters and smokers can attest, there are short-run as well as long-run influences on self-reinforcement. For the overeater, the immediate gratification of eating has more influence over behavior than the promise of a new wardrobe. The same sort of dilemma plagues procrastinators. Consequently, one needs to weave a powerful web of cues, cognitive supports, and internal and external consequences to win the tug-of-war with status-quo payoffs. Primarily because it is so easy to avoid, self-punishment tends to be ineffectual. As with managing the behavior of others, positive instead of negative consequences are recommended for effective self-management.

Conclusion

Social learning theory is practical. It provides a framework for *understanding* and *controlling* human resources in today's organizations. This framework includes internal processes as well as the behavior and the antecedent or consequent environmental contingencies. To date, behavioral theories have suffered from an imbalance, and managers have had to rely on disjointed theories and techniques: need theory, job design, expectancy theory, goal setting, operant theory, and positive reinforcement. Now, with social learning theory, we finally have a *balanced* and *systematic* way of understanding employee behavior as well as a set of proven and potentially powerful techniques for controlling employee behavior and self-behavior for the purpose of improved performance.

American organizations are still among the most productive in the world largely because of our technology. Organizations in the Far East and even in Western Europe have made substantial gains in many industries largely because they are better than we are at human resources management. In the United States the difference between good and excellent organizations can be largely attributed to how people are managed.

A social learning approach and its accompanying techniques may provide the basis for increasing the productivity of our human resources and thus may provide the impetus for getting us back on track as the industrial leader of the world. For example, modeling can have a revolutionary impact on training at all levels. More objective behavior-based rather than trait-based performance evaluations can be used to revamp the appraisal systems currently under fire. But the real key to improvements may be found in new ways managers and executives look at and actually manage the "front end" (antecedents) and the "back end" (consequences) of their people's performances.

On the front end, managers have traditionally done a good job on task and structural cues. (See Exhibit 3.) Considerable time and energy have been devoted to job descriptions, job design (including quality-of-work-life), and organization design and development. But the goal cues, the social cues, and the self-control cues identified in Exhibit 3 have been largely ignored. Goal setting and participation are practical goal cues; quality circles and team-oriented and group-oriented leadership styles are practical social cues; and screening techniques, data display boards, and self-goals/self-contracts are practical self-control cues.

"A social learning approach and its accompanying techniques may provide a basis for increasing the productivity of our human resources and thus may provide the impetus for getting us back on track as the industrial leader of the world."

These new approaches to front-end management, according to social learning theory, provide the setting in which productive behaviors can occur. Once the behaviors are elicited by these cues, however, there must be contingent consequences that sustain and increase the resulting productive behaviors. In other words, the contingent reward systems of the organization and of individual managers are critical to the performance of the people in the organization.

The answer to back-end management is not necessarily in more exotic profit-sharing or bonus plans, but instead may be found in contingent performance-feedback systems that are objective, immediate, positive, and visual; supervisor/manager attention and recognition; and, ultimately, deliberate self-rewards manifested as a sense of accomplishment and the feelings that go with a job well done.

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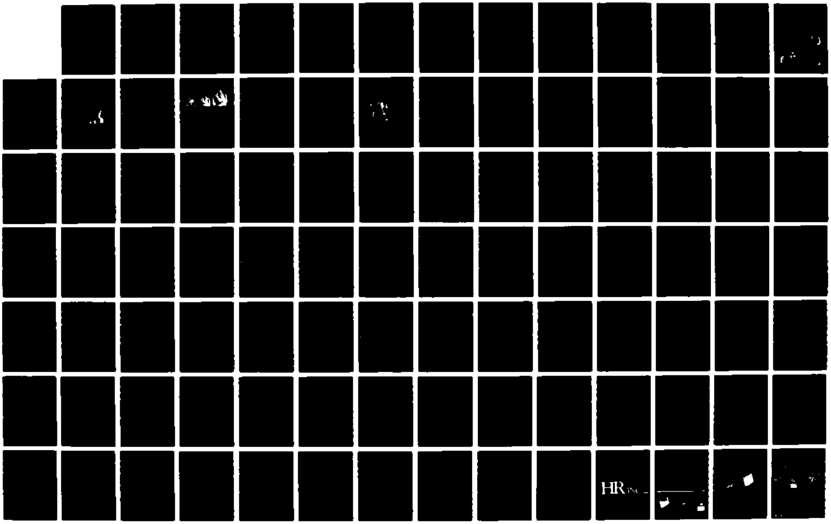

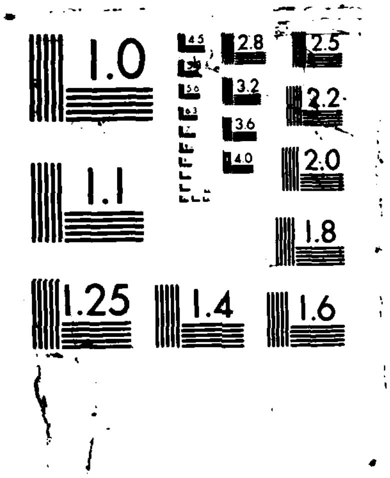
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PANEL 5 TOPIC: DEVELOPING TODAY'S CAREERS TO PRODUCE TOMORROW'S SENIOR LEADERS: IMPLICATIONS OF A CHANGING WORLD

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PANEL 5 REPORT

DEVELOPING TODAY'S CAREERS TO PRODUCE TOMORROW'S SENIOR LEADERS: IMPLICATIONS OF A CHANGING WORLD

I. THE ISSUES:

- What degree of decentralization should be used in both the military and civilian industry?
- How should organizations go about identifying and selecting high-potential "fast track" future leaders?
- Do organizations want creativity, innovation, and risk-taking in future leaders?
- How should organizations encourage creativity, innovation, and prudent risk-taking?
- How should organizations create an organizational culture, environment, and reward systems that foster innovation?
- What should the role of mentoring (as opposed to sponsorship) be?
- Should organizations be striving for participative rather than autocratic leadership? If so, how is this accomplished?
- What are the attributes/abilities organizations should be looking for in future leaders?
- How do we develop these leaders?

II. RECOMMENDED ACTIONS:

- To identify and select future leaders:
  - Institutionalize a formal process for developing leaders
  - Provide different paths or programs for upward mobility for different organizations or different parts of an organization
  - The military should do more to identify and develop future leaders early in their careers

    - Determine the desired attributes of future leaders
        - Characteristics such as candor, ability to rapidly grasp the key elements or aspects of a system, ability to articulate ideas, willingness to pursue and push good ideas, spatial ability, abstract conceptual ability
    - Ensure "line" managers are involved in identification/ selection process
    - Encourage mentoring and input by leaders in identifying their successors as well as future leaders among their subordinates

- To develop future leaders:
    - Ensure assignments that provide depth of experience for future leaders
    - Avoid putting too much of a "spotlight" on designated "fast track" future leaders
    - Provide institutional rewards and opportunities for training and development to "non-fast track" managers
    - Provide broadening training and experience along a carefully managed track for future leaders
    - Start development early in the career
    - Provide upward mobility for both professionals (specialists) and managers (generalists)
    - Encourage sharing of ideas, collegiality, and networking
    - Use joint military-civilian industry development and education programs
    - Expand interchange and dialogue between military and civilian industry beyond procurement/acquisition fields
    - Use executive rotation
    - Teach and develop ability to see senior's perspective or frame of reference

- To encourage prudent risk-taking and innovation:
  - Reward innovation or creativity
  - Allow innovator to present ideas personally to senior leadership and to follow up on good ideas
  - Use "skunk works" -- special task forces
  - Focus on successes, not failures
  - Create an organizational climate conducive to innovation
  - Decentralize and push planning and decision-making down in the organization
  - Define an acceptable level of risk for the organization
  - Share information widely to increase understanding and decrease risk

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- The military could designate more individuals specifically to manage development programs
- The military could do less moving of people back and forth between line and staff positions as they move up in the organization
- The military could adopt more of a specialist and less of a generalist approach
- The military could move away from an "up or out" policy and more toward a "retain in grade" policy
- The military and civilian sectors should integrate human resources managers and strategic planners

ISSUE PAPER

PANEL 5 - DEVELOPING TODAY'S CAREERS TO PRODUCE TOMORROW'S SENIOR LEADERS

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DEVELOPING TODAY'S CAREERS TO PRODUCE TOMORROW'S LEADERS: IMPLICATIONS OF A CHANGING WORLD

There is general agreement among chief executives of major corporations that the environment for business has become so fast-paced, turbulent, fiercely competitive and increasingly global in nature that many of the old certainties about how their companies should be managed and how future key executives should be developed are no longer valid. In the past all decisions with respect to the company's basic mission and its long-range strategies were made by the firm's chief executive officer, with the assistance of a large headquarters staff. A clear one-to-one chain of command was then used to relay strategy and policy decisions down to line executives responsible for the short-term operation of various units. By now, however, it has become plain that the company's business operations are so diverse and so complex that it is not possible for those at corporate headquarters to know enough to make valid decisions as to how each of the company's business units should respond to the changing environment. Moreover, there is need for much closer coordination in implementing change.

A different management paradigm is therefore being instituted in which the line executives in each of the company's business units are expected to do their own long-range strategic planning and implementation as a team, subject to the approval of the next broader business-related unit of which the unit is part. Uniformity of strategy and policy throughout the organization has given way to responsiveness to varying local market conditions, flexibility in the nature of the response and resilience in overcoming unexpected setbacks and seizing unexpected opportunities at the business unit level. These changes have profound implications for the nature of managerial jobs at all levels and for the kinds of skills and knowledge needed to perform them effectively.

It is no longer possible to assume that the primary purpose of the firm's executive development efforts is to replicate the existing organization by replacing individual executives one by one. It is also no longer possible to assume that a good general manager can manage virtually any kind of business for profitable growth. In-depth knowledge of the particular business coupled with:

- the ability to maintain an overview perspective on the relationship between the business and its changing environment;
- flexibility in being willing to shift direction in order to remain attuned to that environment; and
- the ability to lead the entire business management team toward consensus in formulating and implementing the requisite strategic changes are now needed.

At the same time, of course, the operating viability of the unit must also be maintained.

Query: Was the presumed "military model" that corporations previously used ever the way the Armed Services of the U.S. actually operated? Have relatively recent changes in the political, socioeconomic and technological environment for the Armed Forces led to a similar rethinking of the way the military manages its affairs? When terrorism, rather than vast clashes between nations, seems to be our number one defense problem, how and where should strategy be formulated? Even with today's instantaneous communication and rapid transportation, is a long, hierarchical chain of command appropriate?

Because the management team in each business unit within the corporation is now expected to do its own strategic planning, there are more opportunities at relatively low levels for both functional and general managers to experience the outcomes of their own planning and, without undue risk to the corporation as a whole, gradually to develop skill in making effective competitive plans. The direct involvement of "high potential" individuals in the strategic planning for the next broader lines of business gives them further experience in jobs quite similar to that of a CEO. It also allows top management to observe which individuals need developmental assignments in related business units or on task forces to broaden their perspective even further; there are always significant differences in businesses that must be taken into account in making realistic plans. Thus, by the time these "high potential" executives are ready to be considered for positions as heads of major business divisions, they already have extensive experience as members and leaders of management teams engaged in planning and implementing strategic change as well as in managing the day-to-day operations of larger and larger units. As division presidents they will also become part of the top management team, helping the CEO to develop the overall corporate strategy (what kinds of businesses should we be in and how should these businesses be related to one another for maximum competitive advantage over the long run). Because they are included as members of the top management team, they will be observed in action by the chief executive. It is from this group of heads of major business units that the next CEO is most likely to come. Thus, this new way of managing the corporation provides a whole series of CEO-like general management positions that permits the gradual development of the kinds of perspectives and skills that will be needed by tomorrow's leaders.

Query: A business has a clear-cut measure of competitive success -- the bottom line, on both a short-term and a long-term basis. Thus, it is comparatively easy to determine whether a given competitive strategy is proving effective and whether the head of the business unit is successfully coping with external challenges. In peacetime, what kind of success measure(s) do the Armed Services have? In combating terrorism? Should lower-level line officer positions include more responsibility for strategic planning and implementation recommendations in addition to responsibilities for short-term operations? Would this provide a more effective career development track for tomorrow's top leaders?

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PERFORMANCE REVIEW: EXAMINING THE EYE OF THE BEHOLDER

To identify sources of error, bias, and confusion in employee assessment, industrial psychologists have conducted hundreds of studies.

By Berkeley Rice

Looking back over the years of research assessing systems of performance appraisal, Frank J. Landy, a psychologist at Penn State University, admits that he has grown discouraged. Landy concludes that all the attempts to "build a better mousetrap" by experimenting with new types of rating scales or controlling sources of bias have been disappointing. Even when those attempts succeed at reducing error, he says, the improvements in accuracy are often so small as to be merely cosmetic.

"After more than 30 years of serious research," says Landy, "it seems that little progress has been made in developing an efficient and psychometrically sound alternative to the traditional graphic rating scale.... One major conclusion to be drawn from this research is that there is no easy way to get accurate and informative performance data."

Though review systems remain fairly crude instruments for evaluating performance—and there is even widespread disagreement about what they are supposed to accomplish—few companies appear ready to abandon them. Because of constant pressure to increase productivity, the evaluation of employee performance has become a critical issue to industry.

"In spite of the criticisms," says Andrew Grove, president of Intel Corporation, the Silicon Valley electronics firm, "I remain steadfast in my conviction that if we want performance in the work place, somebody has to have the courage and confidence to determine whether we are getting it or not. We must also find ways to enhance what we are getting."

Because of the general dissatisfaction with current performance-review systems, industrial psychologists have conducted hundreds of studies to identify sources of error, bias, and confusion, while management consultants and companies have been experimenting with a variety of new approaches. Some of the research has produced valuable insights into the mental processes involved in performance review, and some of the experiments look highly promising.

According to this approach, the perceptual and cognitive differences among raters may affect their ratings as much as or more than the nature of the rating scale itself. In fact, these cognitive processes and resulting biases may be impervious to any changes in the "system" of evaluation or the structure of the rating scale.

Cognitive researchers often cite studies on eyewitness testimony that demonstrate the fallibility of human observation and memory. Relying on videotapes of people's descriptions of staged "accidents" and other situations, these studies have revealed the unconscious tendency to "reconstruct" past events based on cognitive biases, stereotypes, and other unrelated or subsequent information. Compared with recalling a few crucial details about an accident viewed only days before, the evaluation of managerial performance after six months or an entire year represents such an awesome task that one should not expect a high level of accuracy.

Like witnesses at a busy intersection, whose vision may be hindered by weather conditions or traffic, managers must often base their judgments on only fragmentary evidence of their subordinates' performance. Though they may think they're basing their evaluations on the six months or one year under review, studies of short- versus long-term memory indicate that

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Berkeley Rice is a journalist specializing in management. His article is based on one that appeared recently in *Psychology Today*.

SINCERITY
HAPPY
TRUST
GOD
WORK
LOYAL
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WALLER

Illustrations by Charles Waller

"If we want performance," says Andrew Grove of Intel, "someone has to have the courage and confidence to determine whether we're getting it."

such ratings are based primarily on the most recent observations.

Cognitive researchers have discovered a variety of ways in which managers unconsciously categorize or stereotype employees, ways that interfere with accurate judgments of their actual performance on the job. Once established, these categories act like filters, distorting observation and recall of a subordinate's behavior. A supervisor is thus likely to notice behavior that confirms his previous opinion of a subordinate, and ignore or forget behavior that conflicts with it. A star employee whose performance declines may continue to receive evaluations based on his previously good behavior; one who makes a serious effort to improve may be condemned by his previous reputation for mediocrity.

According to Jack Feldman, professor of management at the University of Florida at Gainesville, these mental stereotypes or categories are difficult to shake because much of any manager's ability to monitor performance is unconscious, or automatic. "To the degree that the behavior of an employee is consistent with the supervisor's expectations," says Feldman, "it is noted and stored automatically. Only when the behavior departs from expectations—as when an employee thought to be competent at a task turns out not to be—does the supervisor begin to pay conscious attention to the subordinate's behavior."

Given this unconscious process, once an employee has been mentally categorized as competent, incompetent, or average, observation and recall of his behavior will be automatically governed by the characteristics of that category. When evaluation time comes, if the supervisor cannot recall any specific information relevant to a critical judgment, the category or stereotype will unconsciously provide it, even creating imaginary examples of illustrative behavior. According to Feldman, such "false memories" are particularly likely to occur when a supervisor has many subordinates to evaluate, and little time or opportunity to actually observe them on the job.

This categorical information processing may be governed not only by such obvious factors as age, sex, race, and attractiveness, but also by stereotypes about certain kinds of jobs. Thus some managers may evaluate the performance of all sales people by the degree to which they fit the traditional image of the fast-talking, aggressive "go-getter," and all bookkeepers by the image of the cautious, meticulous "grind," whether or not the qualities that those images convey are suitable for the particular job.

Another form of cognitive error endemic to performance reviews can be explained by "attribution theory." According to this theory, now well established in social psychology, people tend to attribute their own actions to situational factors, whereas observers tend to attribute them to personal factors. For example, a worker doing poorly on a job might attempt to justify his performance by citing lack of supplies, unpredictable or excessive work load, difficult co-workers, or ambiguous instructions. That man's supervisor, however, is more likely to attribute the employee's poor performance to his lack of ability or motivation.

The same cognitive process affects the way managers appraise their own performance. In one study of a group of middle-level managers, most cited lack of ability or motivation as the cause of unsatisfactory performance by their own employees. But when asked to explain occasions when they had received unsatisfactory reviews themselves, only 20 percent attributed their own poor performance to such personal factors. Most cited factors "beyond their control."

Personal relations can also affect such causal attributions. When evaluating a well-liked subordinate, managers are more likely to attribute successful performance to personal competence, and blame failures on external or mitigating circumstances. With a disliked employee, the reverse attribution will occur. The employees may receive more credit or blame than they actually deserve.

The discovery of how such cognitive processes affect performance review has shaken the field of management psychology, according to Frank Landy. "Eight years ago we would have given plenty of prescriptive advice about how to do an accurate review," he says, "but most of it would have been wrong. The bad news is that there's simply no easy way to do performance review. As appealing as the notion of a precise method of appraisal is, it's never going to be possible to measure such complex behavior in any absolute way. Managers in each company are going to have to get personally involved in developing their own systems.

"The good news," says Landy, "is that we've discovered that a lot of that stuff about rating scales and evaluation formats is really trivial. The particular format just doesn't seem to make much difference. There is no one 'right' way to do it. There are dozens of ways. You just use whichever method feels right for your company. It may not be very accurate, but the degree of error won't make much difference."

Whatever it's called—review, appraisal, evaluation, or rating—most companies conduct some form of regular performance review. But few, apparently, do it well. In a survey of nearly 200 companies by Psychological Associates, a human-resources consulting firm, 70 percent of the employees reported that their review sessions had not given them a clear idea of what was expected of them. Only half said their bosses helped them set job objectives; only one in five reported any attempt by the boss to follow up the review during the year. A survey of 265 major corporations by Drake Beam Morin, another consulting firm, found general dissatisfaction with existing performance-review systems because of such problems as inflated ratings, unclear criteria, and subjective standards.

"Probably less than 10 percent of the nation's companies have systems that are reasonably good," laments Ronald Pilenzo, president of the American Society for Personnel Administration. In many companies, according to *Industry Week*, the handling of performance reviews is "little short of disastrous—a periodic agony thrust on both bosses and subordinates." For both, the result is often mistrust, misunderstanding, and confusion.

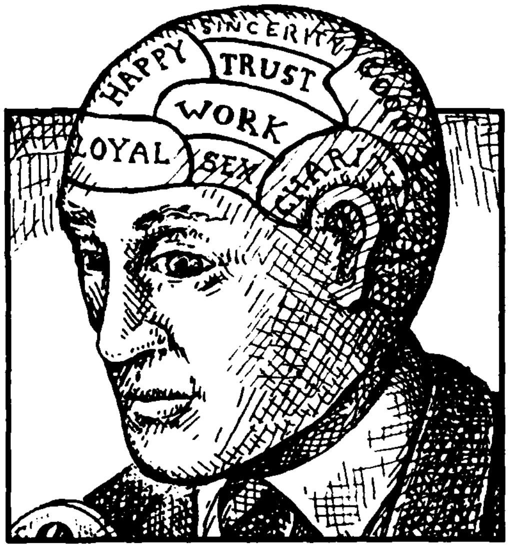
One basic source of confusion about performance-review systems is the lack of agreement on their purpose. Are they designed merely to evaluate performance, or to critique and improve it as well? Should they be used primarily to determine salaries and prospects for promotion, or should they serve as a means of training and career development? Should they focus on behavior or results? Should they be held once or twice a year, quarterly, or more often? And finally, just whom is the review supposed to help: the employee or the supervisor? No appraisal system can accomplish all goals, and conflicting purposes will often undermine attempts at effective evaluation.

Research has shown, for example, that the purpose of an appraisal can have a significant effect on individual ratings. When the review is to be used as the basis for decisions on salaries, promotions, or layoffs, ratings are generally much more lenient than when they will be used only for "career development."

One of the chief complaints about performance reviews is that they are unfair to employees. They are often based on personality traits or such vague qualities as reliability, initiative, or leadership, which are difficult to measure objectively. Many standardized, or "canned," appraisal forms use criteria that are not relevant to the particular job under review. Other standard forms provide a quick and superficial checklist that leaves no room for individual evaluation.

Another common criticism of performance reviews is that they put the employee in a defensive position. The usually one-sided discussion, dominated by the boss, creates a kind of parent-child relationship. Such reviews often turn into lectures or harangues, ending with the boss telling the subordinate that "it's been great to have this open exchange of views."

Studies of short- versus long-term memory suggest that ratings are based primarily on recent observations.



It may come as a surprise to employees who feel threatened by an upcoming review, but many of their bosses find them equally burdensome. They, too, grumble about vague criteria and the irrelevance of standardized review forms. They also complain that reviews require too much paperwork, don't leave room for individual judgment, and don't lead to improved performance.

Many managers feel they need more training in how to conduct reviews, but few companies offer such help. Robert Lefton, president of Psychological Associates, which conducts such training sessions, readily admits that performance review is a tough job—"the equivalent of

The usually one-sided discussion creates a kind of parent-child relationship.

walking up to a person and saying, 'Here's what I think of your baby.' It requires knowing how to handle fear, anger, and a gamut of other emotions, which a lot of managers aren't comfortable with."

Over the past decade, the quest for more accurate appraisals has led to a greater emphasis on specifically job-related criteria, and on supposedly objective or quantifiable ratings. While this effort has produced numerous studies and a variety of new appraisal techniques, the field has hardly achieved scientific precision.

Still, employers have a lot of reasons for not abandoning the quest for greater precision, not the least of which is the need to defend against employee lawsuits charging discrimination or wrongful discharge. "Under the EEOC's Uniform Guidelines," says J. Peter Graves, a Redlands, California, consultant who specializes in this field, "a company must now be able to defend personnel decisions based on performance reviews by showing that those reviews are objective, job-related, and unbiased."

In many cases, they can't. In a number of recent decisions, courts have found the review process too subjective and unrelated to the specific job, and therefore potentially illegal if used in determining promotions, raises, or layoffs.

Until quite recently, most of the research on performance review focused on the rating format and the biasing effect of various nonperformance factors, such as race and sex. But numerous studies on the effects of sex have produced no consistent pattern of bias, although several studies have demonstrated that occupational sex stereotypes can affect performance appraisal. Women working at jobs that are generally perceived as typically or traditionally masculine tend to receive lower ratings than men of comparable ability in the same jobs.

Research on the effects of racial bias has produced a fairly consistent pattern: White supervisors do tend to give higher ratings to white than to black subordinates, while black supervisors tend to favor blacks. But while such bias may be statistically significant, it generally has only a slight effect on the actual ratings. The same holds true for age, education, and other personal or psychological characteristics of the raters and the rated.

One of the chief sources of error in performance reviews lies in the rating format itself. Appraisal forms vary markedly from one company to another, and even among similar divisions of the same company. At Allstate Insurance, for example, review forms for managerial employees are two pages, and are limited mainly to actual performance. At Reynolds Metals, they run seven pages, and also cover developmental factors, personal improvement plans, career interests, and a section for self-assessment.

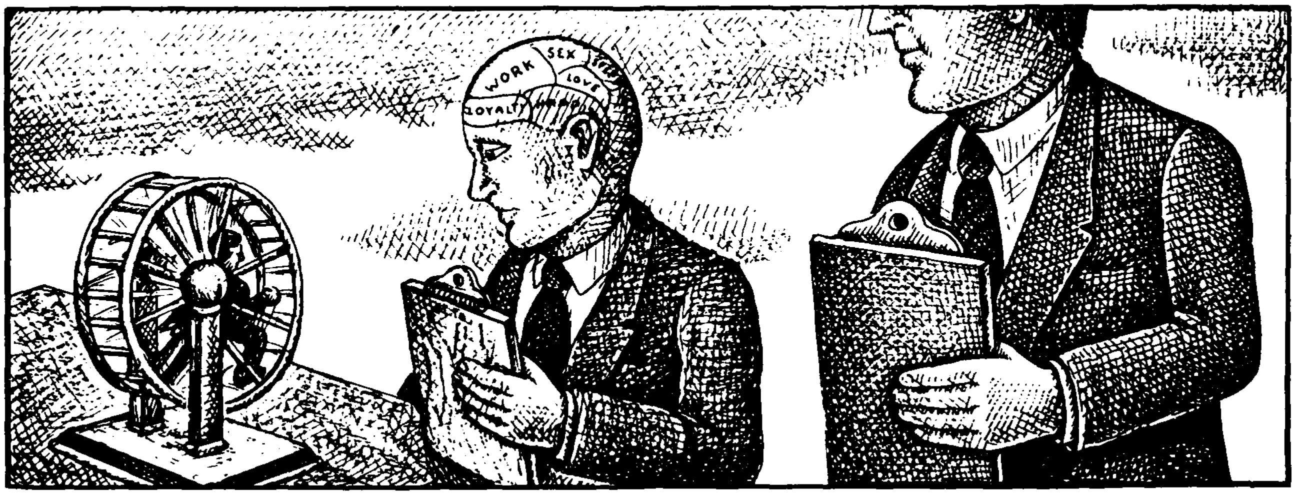
By far the most widely used system is still the traditional numerical or graphic rating scale. For each trait or skill being evaluated, the scale may be marked simply by numbers, say from one to ten, or by such vague adjectives as "unsatisfactory," "below average," "average," "above average," "outstanding." (Xerox, for one, has a slightly more explicit version of the same set of categories: "unsatisfactory," "less-than-expected level of performance," "expected level," "consistently exceeds expected level," and "exceptional performance.")

In a vain attempt to achieve more precise measurements, many companies have adopted numerical rating scales ranging from 10 up to 100. Research has shown, however, that five to nine categories seem to produce the most reliable ratings. Having fewer than five doesn't provide enough room for clear distinctions; having 10 or more brings no meaningful increase in accuracy.

The real problem with any system of graded ratings, according to Robert Guion, an industrial psychologist and editor of *The Journal of Applied Psychology*, is that "you get fairly valid ratings when you look mainly for the extremes of outstanding or very poor performance. But when you look closely at the middle or average range, the objectivity tends to disappear."

That middle range, of course, is where the great majority of ratings usually fall. The reason for this, according to many psychologists, is what they call "central tendency error" or leniency, a natural reluctance to assign low ratings to poor performers. (As one manager puts it, "You don't want to inflict pain.") Several studies have shown that when supervisors know that their subordinates will see the ratings, or that they will have to confront them with the ratings in a "feedback session," they tend to be more lenient. This may be perfectly human, but it doesn't lead to valid appraisals.

Some companies try to prevent central-tendency error, or unreasonable leniency, with "forced-distribution" systems. These set minimums or maximums for the percentage of ratings in each category: No more than 10 percent of one's subordinates, say, can be rated outstand-



ing; no more than 50 percent, average. Many supervisors, however, object to the imposition of such arbitrary limits. Besides, who can say what the distribution curve for such ratings should really be?

Another common source of rating error is the so-called halo effect, by which the "good guy" gets consistently and perhaps undeservedly favorable ratings on all dimensions. The opposite effect can produce unfairly low ratings when there's "bad chemistry" between the subordinate and his supervisor. In both cases, the ratings are the result of general impressions of the employee as a person, rather than measures of specific abilities.

Because of growing dissatisfaction with traditional rating scales, and the search for more objective methods of appraisal, many companies have adopted some form of "behaviorally anchored" rating scales, known as BARS. To create a BARS scale, companies must first conduct a formal job analysis to determine what kinds of behavior constitute proper and improper performance for specific tasks or for "critical incidents" that typify each job. These behavioral descriptions are then used to define, or "anchor," the ratings on the scale. For example, for an item such as "perseverance," a BARS scale might offer choices ranging from "Keeps working on difficult tasks until job is completed" to "Likely to stop work on a hard job at the first sign of difficulty."

Many companies have adopted some form of behavioral-rating scale, even though they may not call it by that name. Some use an actual behavioral scale, while others insist on behavioral examples to back up numerical ratings. Such job analyses are often conducted by outside consultants, but many industrial psychologists feel that the participation in this process by the employees themselves, as well as their supervisors, leads to more realistic job descriptions. Besides, their very involvement in the process should make them more aware of what is considered good work behavior, and thus help them improve their performance.

Just whom is the review supposed to help? The employee or the supervisor?

Advocates of BARS—particularly the consultants who do a thriving business with it—claim that it's a great leap forward. Critics, however, point to several drawbacks. The lengthy job analyses and complex scale construction require a major investment of a company's time and money. A scale designed for use in one department may not be applicable to another. In fact, separate scales may be necessary for each job category within the same department, since the requirements for good performance may differ markedly.

Comparative studies have found that despite its behavioral specificity, and resulting increases in reliability and validity, the BARS method produces only minimal improvements in appraisals, often not enough to justify the major investments of time and money required. Besides, while BARS scales are suitable for jobs involving observable and easily measurable behavior, such as production or clerical work, they are less useful for managerial positions, in which performance cannot easily be reduced to specific or observable behavior. In such jobs, complex judgment may be more important than measurable

Dos And Don'ts For Reviewers

However imperfect, performance reviews will continue to be a necessary duty for most managers. Fortunately, along with all the criticism and research, there is also plenty of advice around on how to conduct them. Herewith, a brief, selective summary of tips given in the dozens of books and articles on performance review.

☐ Decide in advance on what you want to achieve: evaluation, criticism, training, coaching, morale-building, greater output. Don't let one goal interfere with another.

☐ Don't wait until the review itself to let your staff know what you expect from them. Let them know early on exactly what the job requires, what specific goals, standards, and deadlines you expect them to meet, and how you plan to evaluate and reward their performance. Then, when review time comes, there shouldn't be any unpleasant surprises or misunderstandings.

☐ For use at review time, keep a written log or journal throughout the year, in which you enter detailed accounts of individual performance—good or bad—on typical tasks during "critical incidents."

☐ The review should not be a one-way street. Let employees talk about their own performance and problems. See whether they have a realistic estimate of their abilities.

☐ Go over your written evaluation with each employee. Find out whether they feel that your ratings are fair. They don't have to agree with you 100 percent, but if they strongly disagree, they're likely to be less motivated to improve their performance. It's worth exploring the reasons for their disagreement.

☐ Keep the review focused on the particular individual's performance. Show that you care about him and his career. Otherwise, the employee will get the message that the review—and perhaps his performance—doesn't really matter.

☐ When critiquing an employee's performance, make sure you also do some stroking: Reinforce good habits with praise. Be constructive in your criticism. Don't simply tell someone that he's "not aggressive enough." Point out how he can improve, with specific examples.

☐ Whenever possible, try to base your judgments on observable behavior, not general opinions or impressions. Even when rating personality or character traits, try to recall specific examples of such traits in actual practice on the job.

☐ Critique the behavior, not the employee. Keep the discussion on a professional level, not personal. Avoid confrontation.

☐ Be fair, but don't be afraid to give honest criticism when necessary. Most employees don't want a meaningless pat on the back. They want to know where they stand, and how they can improve.

☐ Listen. Numerous surveys of employee attitudes reveal the feeling that "management doesn't care what we think." The review is your chance to get valuable feedback from your own subordinates about their jobs or company policy.

☐ Don't play the role of therapist during the review. If personal problems are affecting an employee's performance, be supportive, but be careful about getting involved. Suggest outside professional help if necessary.

☐ Explain how the goals you set, and thus the employee's performance, contribute to department or corporate objectives. In this way, the review can help build morale and loyalty.

☐ Don't wait until the next performance review to keep employees informed about how they are doing. Follow up on each review periodically with informal progress reports or "mini-reviews." Keep up a continuing exchange so that you'll both spot problems before they become serious.

☐ Use the occasion of a review to get an informal opinion of your own performance. Encourage your staff to tell you about any of your own habits that make their work unnecessarily difficult, or what changes you could make that would help them do their jobs better.

—B.R.

behavior, and thus not easily reduced to items on a six-point scale.

For jobs of this type, many companies have adopted "management by objectives," or MBO, which focuses on results rather than behavior. As practiced today, MBO usually means that supervisors and their subordinates sit down at the beginning of each year, or every six months, and agree (often in writing) on specific goals. At the end of the set period, the subordinates' performance is evaluated in terms of how well they have met those objectives. MBO has become popular at the managerial level because it can be tailored to the requirements of individual jobs, and because subordinates learn in advance which specific goals will be used to measure their performance.

In practice, however, appraisals based on management by objectives can be just as open to claims of unfairness as other systems of performance review. One weakness is the difficulty of setting firm goals six months to a year in advance when performance may be vulnerable to unforeseen factors outside the employee's control: economic conditions, labor problems, price increases, and so on. Even more important, perhaps, is the fact that the method's very individuality makes it difficult to compare the performance of one subordinate with that of another—which is, after all, one ostensible purpose of performance review.

Studies, surveys and experiments at a number of U.S. companies have pointed up plenty of ways to improve performance reviews. Selig Danzig, a management consultant, had a few suggestions based on a recent study at General Electric. Danzig found that managers were much more satisfied with GE's appraisal process than were the employees being evaluated. The employees complained that they hadn't been allowed to express their own views about their performance reviews, and that personality factors had weighed too heavily in the ratings.

Danzig recommends that companies limit the number of functions that they expect the appraisal to achieve. Managers, he says, cannot effectively play the often conflicting roles of judge, critic, and coach. Another source of confusion, he feels, is the attempt to discuss salary and performance at the same review session. Employees tend to focus their attention on the money rather than their performance. To make the review process more interactive, Danzig suggests appraisal-training programs in which both managers and their subordinates take part.

Most companies include some training in performance review for new managers, but after that they are usually left on their own. A few companies, such as IBM, do offer periodic refresher training on review procedures for all managers.

Although some companies are trying to incorporate the latest cognitive research into their appraisal-training programs, Kevin Murphy, a psychologist at Colorado State University, feels that these mental processes are so complex and so unconscious that it will be exceedingly difficult to eliminate or even modify them in training. He recommends that companies instead train managers to become better observers. Managers, he says, should learn how to gather and record supporting evidence, how to discriminate between relevant and irrelevant information, how to do selective "work sampling" when direct observation is necessarily infrequent, and how to decide which aspects of job performance can really be measured.

According to psychologists who have studied the MBO method of appraisal, companies that have adopted some version of it should try to keep their systems as flexible as possible, to allow for individual differences in jobs. At University Research Corporation, a management-consulting firm in Chevy Chase, Maryland, MBO is based on an annual work plan that covers specific duties, targets, and goals. The plan is formulated jointly by employees and their supervisors, a process that often takes two or three sessions. Each person keeps a copy, and reviews it periodically throughout the year in case it needs revision. "We recognize that jobs change, tasks end, and performance expectations are often modified," says Gary Jonas, the president of University Research Corporation. "The system has to accommodate our dynamic and changing work environment."

Five to nine categories seem to produce the most reliable ratings.

Whatever the appraisal method, one of the major complaints from employees is favoritism in the ratings. At Intel Corporation, Andrew Grove takes personal pride in a review system that has built-in safeguards against such biases. Once a supervisor has filled out the review form on an employee, it goes to that supervisor's boss, who must approve the evaluation. "Being one level removed," says Grove, "he can put the employee's performance in broader perspective." A second check takes place when the personnel representative assigned to each department must approve the reviews of each of its employees. If he detects signs of favoritism, he calls them to the attention of the supervisor's manager. As a final check, supervisors meet with their peers at review time and compare the ratings of all their subordinates. Any supervisor who has had contact with another's subordinate can question his evaluations.

Grove recognizes that Intel's system of checks and balances is not foolproof, and that it requires a good deal of time on the part of his managers. But if it increases everyone's confidence that they'll get a fair appraisal, and "if the effort expended contributes to an employee's performance," then Grove considers it a worthwhile investment.

"There is no one 'right' way to do it," says one expert. "There are dozens of ways."

Another way that companies are trying to promote fairness in performance appraisals is to solicit reviews from subordinates as well as from supervisors. When Levi Strauss had to lay off nearly 10 percent of its work force last year, it used such a process to help identify candidates for dismissal from a pool of 2,300 white-collar employees. Each was rated in comparison with colleagues by his immediate boss, two other superiors, two subordinates, and two employees from outside the department, and was permitted to see the evaluations.

Although this novel approach rarely led to any surprising reevaluations, it did help to assure both those who were laid off and those who were retained that the selections were made as fairly as possible. While she calls the new process "very useful," Susan Thompson, Levi Strauss's director of human resources, cautions that it was "only one component" in identifying layoff candidates, and that it has not been incorporated into the company's regular system of performance review.

Despite all the recent research and experiments with different types of performance reviews, there is still considerable dispute between researchers and managers on how to conduct them. David DeVries, a management psychologist at the Center for Creative Leadership in Greensboro, North Carolina, has a foot in both camps. "There's no one system that works for every company," he tells the 100 or so executives who come to the center each year for his one-week seminar on performance appraisal. "What we try to do here is show what the options are, and how the companies' own managers can generally design a system most appropriate for them.

"Because everyone knows that most performance reviews aren't very good, most companies are always revising their appraisal forms or their entire systems, hoping to solve the problem," says DeVries. "That's good for the management consultants, but for the managers who have to do the reviews, it's a real pain in the ass."

DeVries cautions against dropping such traits as integrity, initiative, optimism, energy, and intelligence just because they are highly subjective, and therefore psychometrically suspect. "In business," DeVries points out, "those traits are very important, subjective or not. Executives make personnel decisions based on them all the time. If they do, then those traits should be evaluated, and we researchers can't afford to ignore them.

"There's an inherent level of subjectivity in any appraisal system. You can try to manage it, but you can't make it go away. This does not mean that companies should simply ignore performance appraisal, or let their managers do what they want. It's important to reward your top performers, and to make it clear to the others why they're being rewarded. And it's equally important to distinguish the poor performers. If you don't, it demoralizes those who are really trying hard.

"A good performance-appraisal system can help managers do this, but it must be taken seriously by the managers, by the employees, and by the company. It must be the basis for deciding who gets ahead and who doesn't." ■

PANEL 6 TOPIC: TRAINING TO INCREASE PRODUCTIVITY AND IMPROVE QUALITY: COSTS AND BENEFITS

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PANEL 6

TRAINING TO INCREASE PRODUCTIVITY AND IMPROVE QUALITY: COSTS AND BENEFITS

I. THE ISSUES:

- Motivation
  - Recognize the necessity for all sectors to create an environment that motivates their workforce through training
  - Identify the role of leadership in allowing and generating training, education and professional development
- Community Identity
  - The military has traditionally built a total system that integrates individuals into the organizational mission (future . . . goals. . . fate)
  - Corporations have the same need for "corporate identity" but the process is not integral and, in many cases, an identity with a company or an objective doesn't exist
- Measures of Merit
  - All sectors recognize the necessity for strong assessment programs to decide on appropriateness of training. Decide on "what" before "how and when".

  - How is effectiveness measured? Who decides and on what basis?
    - Supervisor or trainee?
    - Who is the customer?
    - Techniques of measurement.

II. RECOMMENDED ACTIONS:

- Sharing innovations, ideas and approaches towards sustaining training programs in austere budgetary times
- Sharing ways of providing innovative and creative training approaches and delivery systems

- Sharing sector-unique strengths (team spirit, motivators, etc.)

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- Read other sectors' professional and trade journals
- Exchange military/industry personnel
- Invite people to each others' training conferences and continue joint forums
- Promote personnel networking
- Schedule intensive, two- or three-day structured interchanges with military, federal and private sector participants

Training priorities and difficulties can move to different blocks in the matrix dependent upon the current environment

	Attitude Awareness Willingness	Knowledge	Measurable Process and Skills
Upper Management	▨		
Supervisor Management			
Workers Career Entry			▨

ISSUE PAPER

MATCHING HUMAN RESOURCES/TRAINING STRATEGY TO BUSINESS' COMPETITIVE REALITY

PANEL 6 - TRAINING TO INCREASE PRODUCTIVITY AND IMPROVE QUALITY

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MATCHING HUMAN RESOURCES/TRAINING STRATEGY TO BUSINESS' COMPETITIVE REALITY

American business is experiencing an evolution in its competitive realities. There are four distinct phases to that evolution. By recognizing the phases various businesses are in, and matching strategies and contributions to those phases, the human resources function will better leverage both itself and the corporation.

THE FOUR PHASES OF COMPETITIVE REALITY

The competitive realities facing most American businesses can be thought of in four distinct phases. Within any given corporation, the various businesses may be in different phases. All phases but the first are likely to be difficult to navigate. Successful navigation in one phase probably only assures the right to try to navigate the next. Training/human resources has very clear contributions to make in each phase and, perhaps most importantly, can help lead the transition *between* phases.

I. **The Pre-Disruption Phase**. We all compete on the same terms and under similar, if not identical, conditions. Companies win or lose using the same rules and managing similar variables. Training and education are aggressively utilized only in the more enlightened organizations. Even in those instances, training and education are not always linked closely to the business strategies.

II. **The Cheating Phase**. *We* all still competed on the same terms, but *they* didn't. Offshore competition struck at our open markets from protected home sanctuaries. They used inexpensive labor and cheap, subsidized capital; dumped products into targeted markets and generally leveraged their more modest beginnings through *country* strategies and multi-industry groups. A variation on this phase is disruption caused by technological innovations. The information and financial industries are current examples. Training and education still aren't an issue during the "cheating phase" and their general stature doesn't necessarily change.

III. **The Discovered Secrets Phase**. Recognizing the severity of the problem, we study our new competitors and selectively imitate. Quality circles, just-in-time inventory, and better strategic planning are looked to as potential saviors. Training departments become increasingly important. Performance-based training makes multiple contributions.

IV. **The Answer is Everything Phase**. This is the phase that many American industries and companies are about to enter. The single-dimension efforts of Phase III give way to the realization that long-term competitive advantages reside in those organizations that undertake and master improvements on multiple fronts. Organizational responsiveness and adaptiveness are key. No one functional strength (technology, marketing, manufacturing, etc.) enables the organization to prevail over increasingly sophisticated and well-balanced competition. Even technological superiority isn't sufficient, when competitors can bring low-cost, high-quality near-copies to market in a matter of months, thereby reducing or eliminating the traditional product life cycle that allowed the technological innovator to recoup R&D investments.

Faced with competitors that are leveraging intra- and inter-company cooperation, tradeoffs, and synergy, American firms search to find similar or offsetting leverage. Gone are the days of the go-it-alone division or product managers. The marketplace and future belong to corporations with strong and balanced organizational capabilities. In "The Answer is Everything Phase," such organizational responsiveness and adaptiveness to competitive reality and market opportunity are what the training business is about. It alone provides the awareness, forums, content, and facilitation that are needed for effective transitions. Timely adjustments in knowledge, attitudes, and skill mixes are at the heart of the organization's responsiveness.

Again, different industries, organizations, and businesses are in different phases of this evolution of competitive realities. The training and education functions need to be matching their value-added to each organization's reality. That organizational reality is comprised of both an external (market, competition, etc.) and internal (readiness) dimension.

THE OPPORTUNITY FOR HUMAN RESOURCES/TRAINING

The challenge, then, for human resources/training and education is threefold:

1. Recognize in which phase of competitive reality each of the organization's businesses is located.

2. Develop human resources/training strategies that match the competitive phase.

3. Facilitate the organization's understanding of the phases its various businesses are in, while at the same time building organizational readiness for the human resources/training strategies that accompany each phase.

NOTE: The human resources/training function should not expect the operational leadership of the organization to identify the competitive phase and/or call for matching human resource strategies. Operations may be unable, on its own, to step back far enough for such self-analysis. Additionally, for human resources to wait for such prompting is an abdication of rightful responsibility.

The first part of this paper identified the four phases of competitive reality facing most American businesses. It also alluded to the possible and likely role played in each phase by training and education. The balance of the paper details a current example of changing corporate competitive realities being served by matching and changing human resources/training and education strategies.

MOTOROLA -- A CASE-IN-POINT

Over the past 20 years, Motorola, the six-billion-dollar electronics firm based in Schaumburg, Illinois, has seen its various businesses move in and out of the four phases of competitive reality. Throughout that movement, the human resources/training and education response has likewise evolved. While not always perfectly on target (i.e., not always providing the perfect set of development strategies at each moment), the pattern is clearly one of renewed human resources/training strategies that support, if they don't actually lead, the transition of businesses in and out of phases. Here is a sampling of Motorola's movement in and out of the four phases and the corresponding human resources/training strategies.

I. The Pre-Disruption Phase

Motorola's businesses compete primarily with domestic corporations. Harris, G.E., Raytheon, Intel, and a host of other US-based organizations go after the same markets, using similar manufacturing processes and products designed by engineers from the same pool of schools and, more often than not, sold against the same cost/price curves.

Training and education during this period are relegated to a lower priority support role, with one exception. Following the lead of an enlightened IBM, Motorola opens what will become known as its Oracle facility in Arizona. For more than a decade, Motorola managers in teams of 16 spend a full 30 days at the self-contained desert university. The finest world faculty take the Motorola leadership on traditional, contemporary, and futuristic academic journeys. The curriculum, while primarily business school in origin and design, offers intellectual broadening, occasionally delving into social responsibility, psychology, health, etc. The investment in time and dollars is enormous, but the result is a top management pool that some 15 years later is still more than 85 percent inculcated with the "Oracle experience."

II. The "Cheating" Phase

The disruption comes primarily in the form of Asian competition. First hit is the consumer products division. By all internal accounts, Motorola moves out of those businesses (TV, auto radio, etc.) for reasons *un*related to the pressures being exerted by Japanese competitors. The conscious decision to focus instead on *industrial* electronics later proves strong.

Soon, semi-conductors and pagers are experiencing the same onslaught: Motorola responds by accusations of dumping, and calls for equity in competitive practices.

During this period, the problem is seen as external. Human resources/training is looked to for the same support (and is *given* the same support) as in the previous phase. Increasingly tough competition, recession economics, and an upper middle management population that is all but fully indoctrinated in the Oracle desert experience argue for discontinuing that particular training and education investment.

III. The Discovered Secrets Phase

Motorola and the world discover that, however unorthodox and unsportsmanlike the Japanese competitive behavior, there is another dimension to their increasing success. The Japanese seem to have mastered certain of the manufacturing processes that can result in high quality. Autos, cameras, and electronics are not simply cheaper, they're good. The Pacific Rim has discovered the likes of statistical process control and just-in-time processes. American business school professors may have originated the concepts, but the Japanese seem to have been the only ones listening.

Motorola's human resources/training effort during this time takes significant strides and is soon making two contributions:

1. Leading the transition into the phase by enhancing the corporate awareness of the key success factors being employed by the competition.

2. Providing performance-based training in those techniques and processes deemed most critical to competitive strength (quality, just-in-time, statistical process control, participative management, etc.).

The corporate-wide training function goes from zero professionals to more than 30 -- nearly all of them steeped in criterion-referenced instruction, job models, and the full complement of instructional design technologies. The strength of the training contribution is its nearly singular focus on *performance-based* instruction. The source of that strength is the leader of the corporation, Chairman Bob Galvin, and the leadership of human resources/training and education.

While Operations is well aware of the evolving competitive environment, it is so enmeshed in the week-to-week battles that it falls to the staff functions, particularly strategy/planning and human resources/training, to provide new and alternative perspectives.

The search for solutions during this phase tends to be functionally driven. Solutions are therefore, at least initially, functionally based.

Sales explores "systems selling" versus traditional black-box sales. Manufacturing looks to statistical process control and inventory reduction programs. Some hoped-for solutions such as quality and participative management cut across functions, but the focus remains on discrete potential solutions. Not surprisingly, the businesses begin worrying about the program-of-the-month syndrome, arguing that the organizational plate is becoming too full.

CRITICAL TRANSITION

It is during this third phase, with its search for functionally specific solutions, that the seed for the transition to Phase IV is planted. The bulk of the

Phase III training and education strategies are performance-based and born out of instructional design processes. Their very success necessitates specificity of direction and purpose. A course in statistical process control is built to provide precise information to a precise audience under specific conditions and with very clear anticipated outcomes. For the human resources/training strategy during this phase to work, precision and discipline of instructional design technology is a must.

But the search for functionally specific and comfortably delimited solutions must be short-lived. There is little likelihood of a single-dimension adjustment, such as inventory reductions or even participative management, offsetting the multiple strengths and leverage points of foreign competition. The answer to sustained competitive strength is *multi*-dimensional and ultimately resides in overall organizational capability.

C.K. Prahalad of the University of Michigan's Graduate School of Business argues that it is the organization's ability to readily implement a changing and currently unknown mix of future strategies that enables it continuously to compete effectively. The answer, therefore, lies in part in successfully managing internal capabilities, interdependencies, and tradeoffs, and in part in the timely execution of whatever strategies are selected.

Such organizational adaptiveness and readiness are not automatic or given. The very functionally grounded behavior that drives the search for solutions in Phase III may be counterproductive to any effort at managing organization-wide, cross-unit interdependencies and tradeoffs.

Once again, there is great potential for human resources/training to not only contribute but provide a leadership role. The programs, processes, and interventions initiated by human resources/training can be the catalyst and forum for the organization's journey into and through Phase IV. With the right charter, the function can provide the conceptualization, occasion, content, and facilitation for the transition.

IV. Everything is the Answer

In varying degrees, several of Motorola's businesses are realizing that any long-term solution rests on broad organizational capabilities. Managers who were warning of the danger of too many programs and too-full plates are beginning to ask for assistance in *integrating* the programs. What were perceived as potentially stand-alone solutions are now seen as parts of an overall kit of tools which, if properly and discriminatingly employed, could result in increased organizational effectiveness.

There are two specific human resources/training efforts that laid much of the groundwork for this evolving Phase IV awareness: the two-week Motorola Manufacturing Institute and the past 3 1/2 years of Executive Education interventions. Both undertakings shared many of the following dynamics:

1. They grew out of the Phase III search for answers. The Motorola Manufacturing Institute (MMI) was in large measure a result of the search for solutions being conducted by the Manufacturing Training Advisory Council. The potential list of solutions and the seemingly promising results of a similar IBM institute suggested the need for a substantive, exploratory, and yet integrated effort such as the Institute.

A related concern gave birth to MMI's chronological predecessor, the Senior Executive Program. The first Senior Executive Program (SEP) focused on Asian competition. It was intended to continue and build on the foundation laid by the old Oracle program in the desert. The specific and ultimately wise focus on Asian competition was driven by Bob Galvin and enthusiastically supported by a group of quiet internal visionaries who were likewise searching for answers to the growing Asian competitive challenge.

2. They built on a "critical mass" of highly relevant and new information. Academics, consultants, and internal executives were all chosen as resource people for MMI and SEP based on their ability to bring significant quantities of new and highly relevant information to an otherwise possibly unmoved senior-level audience. Special Motorola-specific studies were commissioned. Without these critical quantities of high-impact data, managers might have engaged in traditional rituals of denial and avoidance. (Indeed, in subsequent Executive Education interventions, they sometimes did.)

3. They utilized extensive group processing techniques. From design through post-program debriefing, MMI and the Executive Education interventions (SEP and others) helped groups of Motorola managers process information. "Skunkworks," subgroups, full group discussions, team reports and task forces, all facilitated by support staff or trained operations management, helped increase the impact and usefulness of the critical mass of information.

4. While notably focused, they accepted and capitalized on the highly iterative nature of the process. Particularly in the Executive Education interventions, it was essential to deal with, if not actually relish, the occasional lack of closure and evolving direction. Outputs from one phase became inputs for a new unanticipated phase. The solid, seemingly inspired design of one moment had to be reconsidered and reconfigured as business and/or organizational realities shifted.

Over a period of 3 1/2 years and through a series of no less than seven specific but related executive level interventions, covering Asian competition, the dynamics of being more global, China, benchmarking, and creativity, the Executive Education function followed the energy unleashed by each intervention as it designed and implemented the next. An Asian competition seminar for the top 180 officers led to a global strategies task force and China seminar, which led to a "becoming more global" seminar, which in turn stimulated multiple efforts in creativity and competitive intelligence. The successes realized were in large measure a result of an essential flexibility and adaptiveness of designs and intervention strategies.

5. They introduced new human resources/training technologies. Perhaps most important for purposes of this paper, the above dynamics were not the performance-based, instructional design technologies. At various points, MMI, SEP, and a host of other Executive Education interventions employed performance-based technology. But the interventions that led and are leading the way through the transition into Phase IV represent a departure from the functional strategies and instructional design technologies that were proving so successful in Phase III.

In short, the ability of human resources/training to contribute to, if not lead, the corporation's movement from phase to phase was based on the function's ability to change, to employ new and additional strategies that were right for the competitive realities confronting the corporation.

In a rapidly changing, increasingly competitive environment, such adaptiveness will remain the challenge for Motorola and for other corporations and their human resources/training leadership.

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PANEL 7 TOPIC: WORK AND THE FAMILY: IMPLICATIONS FOR THE ORGANIZATION

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PANEL 7 REPORT

WORK AND THE FAMILY: IMPLICATIONS FOR THE ORGANIZATION

I. THE ISSUES:

- Balancing demands of work and family is a growing concern to individuals and organizations
  - Changing work values are creating new demands on organizations
  - Conflicts between time commitments to enterprise and commitments to family affect worker productivity
- Restructuring of the workforce requires rethinking approaches to work problems: absenteeism, retention, relocation
  - Solutions of the past will not satisfy demands of the future
  - CEO/Commander out of tune with value changes deters *organizational response*
- Cost versus value to organization of implementing family support programs will determine their existence
  - There are few indices of successful programs to measure productivity enhancement; cost savings/avoidance
  - Lack of quantitative data makes problem difficult to understand as well as solve
  - Escalation of demands/proliferation of programs make data imperative
- Responsibility for solutions must be shared in the future
  - Work force changes are so varied and value dynamics so broad, individuals cannot solve problem alone
  - Individuals, organizations, unions, governments, schools, communities all must take a role

    - Organizational involvement will become a means to compete for good people rather than be driven by worker or union demands

II. RECOMMENDED ACTIONS:

- Work smarter at providing solutions to family concerns
    - Use local in-place resources
    - Mobilize employee group/problem solving efforts
    - Recognize appropriate level at which problem should be addressed: local plant, headquarters, Congress
    - Conduct continual assessment of needs and program effects
- Educate and sensitize CEOs/commanders to values/life style changes and their impact on the workforce
    - Identify indices of successful programs and translate into dollars saved
    - Tap into available data networks and resources
- Acknowledge the necessity for multiple programs to meet multiple needs
    - Equity in benefit programs -- bachelor vs. married vs. single parent vs. dual career families -- life stage benefit packages
- Anticipate government involvement
    - If industry is too slow in making changes -- pressure will motivate politicians to offer legislative solutions
    - Initiate repeal of statutes which limit flexibility to offer needed improvements
- Recognize and accommodate career pursuits that don't follow traditional paths
    - Provide lateral entry opportunities for career "Stop-outs"

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COLLABORATIVE UNDERTAKINGS:

- Pursue cross-organizational site visits to observe local programs for examining ways to collaborate
  - Industry members contact and visit bases located near plants/headquarters
  - Installation commanders visit local industry to pursue joint/collaborative programs
- Tap into available resources to share data/experience/research: Catalyst, Conference Board, Bureau of National Affairs, Human Resources Information Computer Network.
- Continue panel interchanges via mail
  - Share organizational publications which address family concerns
- Examine opportunities to collaborate on spousal employment programs
  - Remove local barrier/bias in hiring practices

ISSUE PAPER

MYTHS AND REALITIES: WORKING PARENTS AND CHILD CARE IN THE 1980S

PANEL 7 - WORK AND THE FAMILY: IMPLICATIONS FOR THE ORGANIZATION

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MYTHS AND REALITIES: WORKING PARENTS AND CHILD CARE IN THE 1980S

I recently attended a meeting on single heads of household sponsored by the Labor Department and attended by business executives, labor leaders, social service and civic leaders, and academic specialists on work and family life. About an hour and a half into the meeting, one executive spoke up. He said that he had recently learned something that had changed his whole outlook. He had learned that less than 10% of the families in America were the so-called traditional family with a husband breadwinner and a wife at home caring for the children. "It's amazing -- the family that I was raised in is a small minority -- so is the family in which I have raised my own children," he said.

Some of the other attendees at the meeting were surprised that he had only recently heard this. Just that week there was a cover story on the changing family in Newsweek Magazine.

The fact is that families have changed more rapidly than both our institutions and our attitudes in America. In the following paper, I will discuss ten myths that have nonetheless lingered in the wake of vast societal change.

MYTH 1: THE TRADITIONAL FAMILY IS ALIVE AND DOING WELL

The perspective of executives at the meeting I attended is not that atypical of other corporate managers. At a Harvard Business School Seminar for executives, participants were asked to guess what percentage of their own workforce lived in traditional families. Their estimates ranged from 40% to 70% -- while (as the executive I met had learned) the actual figure nationwide is closer to 10% (Friedman, 1986).

Fact: THERE IS A DRAMATIC INCREASE IN THE NUMBER OF WORKING MOTHERS.

- In 1940, 8.6% of the mothers with children under 18 were in the labor force.
- By 1985, 62.1% of mothers living with children under 18 were in the labor force.
- In 1985, 60% of mothers whose youngest child was 3 to 5 were employed, up from 45% a decade earlier.
- The most dramatic increase has been in the working mothers of children under 3. This percentage jumped from 35% in 1976 to 41% in 1979 to 50% in 1985.

Sources: Bureau of Labor Statistics 1985; Select Committee on Children, Youth & Families, 1984; Ad Hoc Day Care Coalition, 1985.

Fact: THE NUMBER OF WORKING MOTHERS IS PROJECTED TO CONTINUE TO INCREASE.

- By 1990, 64% of all families with children under 18 will have mothers in the work force.
- By 1990, 66% of all new entrants into the labor force will be women; currently 80% of all women in the workforce are of child bearing age, and 93% of them are expected to become pregnant sometime during their working lives.
- If the rate of the employment of mothers of infants continues at its current pace, by the year 2000 four of every five American babies will have working mother.

Source: Ad Hoc Day Care Coalition, 1985; House Select Committee on Children, Youth and Families, 1984.

MYTH 2: THE TRADITIONAL FAMILY SHOULD BE ALIVE AND DOING WELL

A corollary of that myth is that women are working because they want to, putting their own needs above their children's, and they should stay home. Certainly women work for a variety of reasons -- economic need, protection against future need (such as divorce) and self-fulfillment. Nevertheless, the need for money in today's economy is a strong motivation.

Fact: MANY WOMEN IN TWO PARENT FAMILIES ARE WORKING OUT OF ECONOMIC NECESSITY.

- Twenty-five percent of the employed women in two-parent families are married to men earning less than $10,000 a year, 50% are married to men with incomes under $20,000 and 80% have husbands earning less than $30,000.

- In the Newsweek poll, 56% of the women reported working for money, 41% for other reasons. As the level of income went down, the importance of working for money went up. In blue collar families, 60% worked for money, 37% for other reasons.

Sources: Select Committee on Children, Youth and Families, 1984; Newsweek Magazine, March 31, 1986.

Fact: THE ECONOMIC NEED TO WORK IS CRITICAL FOR SINGLE PARENTS

- Twenty-six percent of all children under 18 currently live in single parent homes.

- By 1990, there will be three million children under 10 who will live in single-parent homes, a 48% increase in this decade.

- The median income for single parent families with children under 6 is $6,114; for children from 6-17, the median family income is $12,152.

- *One third of mothers supposed to receive* child support payments do not. Those who do average under $1,800 per year, which is only 20% of their total income.

Sources: Bureau of Census, 1984; Children's Defense Fund, 1982; Bureau of Labor Statistics, March 1985 (unpublished)

With this evidence in mind, the debate about whether women should work or not seems pointless. They are working and they will continue to do so.

MYTH 3: MOTHER'S WORKING WILL OF NECESSITY HARM CHILDREN

That view implies that mothering at home is good; likewise, it implies that when mothers are working, there is a lack of mothering. There is widespread popular support for this notion even among mothers themselves. A recent survey by the Public Agenda Foundation found that 42% of the working mothers they polled agreed with the statement "Having a mother who works is bad for children under 6" (Kagan, 1983).

In the 1960s and 1970s, researchers were reflecting this view by focusing on the question of how maternal employment harms children. During this same time period, researchers were investigating how the father's lack of employment harmed children (Bronfenbrenner & Crouter, 1982).

Fact: WHETHER A MOTHER WORKS OR NOT IS NOT A PREDICTOR OF HOW WELL HER CHILDREN WILL FARE.

- Studies have found in comparing the children of mothers who work and mothers at home that there are few if any statistically significant differences.
- In reviewing the research in this field, I've concluded that it is the daily experiences in a child life that do make a difference. The most salient factors are:
    - The conditions of the mother's and father's job: Tension with co-workers and the boss, lack of job control, and other severe job stresses can be carried home and affect the children.
    - The mother's and/or family's attitude toward working: If the mother doesn't believe she should be working or the father is opposed to his wife's employment, then family stress can result, which, in turn, can affect the child. Conversely, if the mother and father feel that the mother's work is integral to the family's stability or to her own well-being, then children can pick up a sense of pride and the feeling that "we're in this together."
    - Other stressful events within the family: The impact of stress is, in part, additive: the more problems, the more likely there will be an effect on the child. Tensions at home, such as problems in the marriage, coupled with job-related problems, can make a difference in the child's development. The way parents perceive the problems (as situations to be remedied rather than devastating), the way they cope (particularly by taking steps to solve problems), and whether there is social support for the parents and/or the child can reduce if not completely block the negative effect of stress.
    - The quality of the child care: It is clear that children's development is affected by the quality of child care they receive.

Sources: Belsky, 1985; Piotrowski & Crits Christoph, 1982; Rutler, 1981; Galinsky, 1986; Gamble and Zigler, 1986; Repetti, 1986.

MYTH 4: CHILDREN DON'T NEED SPECIAL CHILD CARE. NEIGHBORS AND GRANDMOTHERS HAVE BEEN TAKING CARE OF THEM FOR GENERATIONS -- WHY SHOULD TODAY'S CHILDREN NEED ANYTHING DIFFERENT.

Another popular belief is that the quality of child care doesn't matter, especially for young children "because they don't learn anything before they are three."

There has been a growing number of studies on how child care affects children. In reviewing those studies, I've concluded that there are three aspects of child care arrangements that make a difference:

- The personal interaction between the caregiver and child and what they do together;
- The resources of the arrangement -- numbers of children, group size, the training of the caregiver, health and safety considerations, and so forth;
- The linkages between the child care and the family.

THE PERSONAL INTERACTION

INTERACTION AMONG THE CAREGIVER AND THE CHILDREN

It is the everyday relationship between the caregiver and the child -- the greeting in the morning, the comments made when the child has drawn a picture, the way the caregiver asks a question -- that is the singular most important determinant of quality.

The relationship between caregiver and child has several aspects:

- THE INTERPERSONAL RELATIONSHIP

  In high quality child care, there is frequent contact between the caregiver and the children -- one to one, in small groups, and occasionally in large groups.

- THE DISCIPLINARY RELATIONSHIP

  A considerable number of studies have been conducted on how different methods of parental discipline affect children, and these findings can be applied to child care. Studies have found that children develop self-control and are more compliant, cooperative, and considerate of the feelings of others if the following approaches are used:

- Caregivers focus children's attention on the problem or task to be accomplished before asking children to comply.
- Reasoning is used as a technique.
- Other-oriented discipline is used. Caregivers explain how a child's behavior affects others.
- Problem solving is encouraged.
- Positive reinforcement is given rather than criticism.

o THE TEACHING RELATIONSHIP

Teaching, whether formal or informal, takes places primarily through the use of language. One large study found that a high degree of verbal interchange between the child and the caregiver not only promoted the child's acquisition of language but also influenced the child's positive emotional development.

o STABILITY

Research on child development has uniformly found that when the child is exposed to one caregiver after another, after another, the child become at-risk for social and emotional problems.

o THE ACTIVITIES

High quality child care arrangements are characterized by the following elements:

o The teacher-caregiver has a well thought out plan for the activities.

o Children engage in constructive play and many have opportunities to select what they do from a sufficient, though not overwhelming, number of choices.

THE RESOURCES

It is, as I've previously stated, the relationship between the child and the person who cares for him or her that is the most important determinant of the quality. "In order to achieve that", says Sue Bredekamp (1986) from the National Association for the Education of Young Children, "the resources of child care come into play -- that the adults have training, for example, or that there are enough adults per number of children. These don't absolutely determine that the child care will be of good quality, but they make it much more likely."

TRAINING

In the mid-1970s, the federal government launched a study to investigate how various features of day care centers affected the quality of care received by children. This study, the National Day Care Study, concluded that one of the most important ingredients of quality was the on-going relevant training of the caregiver.

STAFFING: GROUP SIZE AND ADULT/CHILD RATIO

The National Day Care Study also concluded that besides relevant training for caregivers, the quality of care was highly related to the number of children in a group. They found that in smaller groups, as opposed to larger ones, the caregivers spent more time being with the children and less time simply watching them. The children were more verbal and more involved in activities. They were also less hostile with each other. Finally, the children in smaller groups made the greatest gains on standardized tests of learning and vocabulary.

In addition, the amount of space, the way the space is divided, health and safety considerations, and nutrition make a difference.

THE LINKAGES

"One of the most important elements of good quality in child care, and one that is not usually discussed," says Uric Bronfenbrenner from Cornell University (1986), "is the importance of linkages between the family, the day care, and the world of work. The principle developmental power of out-of-home arrangements is their effect on the family. If the child care enhances the power of family, there are excellent results for the child. If the family is undermined, then the outcome is not so good."

CAREGIVER - PARENT INTERACTION

Numerous studies have been conducted on the long-term effects of preschool programs, particularly the government-funded Head Start programs. When researchers have asked similar questions, combining the data has become possible. One of the most important findings, emerging from hundreds of these studies, is that when preschool programs are effective, they do much more than teach the child. The parents are affected, and through this experience, become better teachers, motivators, and advocates for their children.

In addition, for child care to serve the family well, it needs to be convenient, affordable, and its hours must match the job schedules of the parents.

Sources: Galinsky, 1986; Blank, 1984; Baumrind; 1971; Crook, 1980; Wenar, 1981; Honig, 1985; Haswell, Hoch & Schaffer, 1982; Abt Associates 1979; McCartney, Scarr, Phillips, & Crajek, 1982.

MYTH 5: EDUCATION AND CHILD CARE ARE DIFFERENT

This view has its roots in the past when child care was a custodial service for the poorer child. Today a separation between teaching and nurturing is much less tenable, if not impossible: school programs have extended days, and child care programs have educational components.

As Docia Zavitkowsky (1986), the President of NAEYC, wisely states, "In order for children to learn, they must be well cared for. In order for them to be nurtured, they must also be taught."

Fact: THERE IS A GAP BETWEEN THE SUPPLY AND THE DEMAND FOR CHILD CARE.

- In a recent study of the employees at a hospital, Emlen & Koren report that 75% of the women and 57% of the men found it difficult to find child care.

- Local resource and referral agencies report that there are often long waiting lists for child care programs, with the highest demand and the shortest supply being for infant/toddler care as well as for after-school care.

- In a recent study by the US Bureau of the Census, women were asked what they would do if satisfactory child care were available at a reasonable cost. Twenty-one percent of part-time working mothers said they would increase their labor force participation; 26% of women in the labor force said they would look for work.

Sources: Emlen & Koren, 1985; Bureau of Census, 1983.

Fact: THERE IS AN INCREASE IN THE NUMBER OF CHILDREN IN THIS COUNTRY.

- After a decade of declining birth rates, in the 1980s the preschool population (children under the age of six) has risen by 8.2%, from 19.6 million to 21.2 million. This includes the largest number of children under five since 1968.

- By 1990, the population under six is projected to reach 23 million.

- In total, the preschool aged population will increase by 17.2% in this decade.

Sources: Bureau of Census, 1984; Pagageorgiou, 1986.

MYTH 7: THE FREE MARKET SYSTEM WILL WORK TO SORT OUT AND ENCOURAGE QUALITY CHILD CARE PROGRAMS.

Fact: IN THE PAST, WOMEN CAREGIVERS HAVE BEEN SUBSIDIZING PARENTS BY WORKING FOR LOW WAGES.

- Day care workers have had, on average, 14 years of education but are in the lowest 5% of all wage earners in the United States.

- Two-thirds of center caregivers make incomes below the poverty line; 90% of all family day care providers are below poverty level earnings.

- In 1980, the average family day care provider made $2.20 an hour. A center teacher made $3.22, bartenders made $4.29, and teachers made $4.87.

- In New York State, the latest figures show that employees in day care, nursery schools and Head Start Programs earn on the average $7,893.

- In Oregon, only 11% of child care workers have health coverage. Fewer than that have pension funds or personal leave time. In California, 67% had no medical coverage, and 85% had no retirement, dental or life insurance coverage.

Sources: Child Care Inc., 1986; NAEYC, 1986; Ruopp & Travers, 1982; OAEYC, 1985; Divine-Hawkins, 1981; Child Care Employee Project, 1986.

It is generally believed that this condition of low pay will continue, based on the view that child care workers should be nurturing, giving people who are willing to work for "pin money." This view, however, is no longer tenable.

Fact: THERE IS A GROWING SHORTAGE OF CHILD CARE WORKERS IN THE UNITED STATES.

- Currently, there is a 42% staff turnover rate in child care. In some states, it is as high as 57%.
- The baby bust generation has come of age -- the number of young adults from 18 to 24 will drop from 30 million in 1980 to 25 million by 1990. Thus, there is a shrinking pool from which to draw new employees.
- At the plenary session of the 1985 annual meeting of the National Association for the Education of Young Children (50,000 members), the most frequently voiced dilemma was the growing shortage of child care workers.
- The President of Children's World, a child care company with 200 centers in 12 states, wrote a recent article in Child Care Information Exchange relating the current staffing crunch in child care to low pay and poor image.
- Another chain of approximately 150 centers in 50 states has conducted a three-year follow-up study of staff turnover. They found that the majority wished they could remain in the field of child care but did leave for better paying jobs.

Sources: American Demographics, January 1984; OAEYC, 1985; Child Care Inc., 1986; Benson, 1986.

Fact: AT THE SAME TIME, THERE IS AN INCREASING PARENTAL PREFERENCE FOR GROUP CARE AND EDUCATIONALLY FOCUSED PROGRAMS FOR YOUNG CHILDREN.

- The latest national survey of child care arrangements, conducted by the Census Bureau in 1982, indicates that in-home care is used by 31% of parents with children under 5. This is a substantial decrease from the 47% who used this kind of child care in 1965.
- The Center for Statistics data on three-to five year olds indicate that the number of children enrolled in preschool increased from 37.5% in 1970 to 53.5% in 1983.
- Nursery school enrollment doubled from 15.3% in 1970 to 33.6% of the three-and four-year-old population in 1983.

- o During this same 13 year period, kindergarten enrollment increased from 80% of 93% of the five year olds.

- o Eighty-five percent of the preschool children with working mothers are currently in nursery schools, kindergarten centers, or family day care arrangements.

Sources: Pagageorgiou, 1986; Marx, 1985.

MYTH 8: THIS IS NOT A SOCIETAL OR A BUSINESS ISSUE. IT IS A PROBLEM OF THE INDIVIDUAL FAMILY. WOMEN HAVE MADE THE CHOICE TO HAVE CHILDREN. WHEN THINGS ARE DIFFICULT, IT'S NOT THE SOCIETY'S OR THE COMPANY'S PROBLEM.

Fact: THE CHILD CARE ARRANGEMENTS THAT PARENTS MAKE AFFECT THEIR PRODUCTIVITY.

- o In one study of 8,121 employees, women whose children were in out-of-home care had the highest absenteeism rate of all workers: 65% higher in days missed, 278% in leaving work earlier and 210% higher in interruptions at work.

- o In the same study, 47% of the women employees and 28% of the men employees with children under 12 experienced stress related to their child care arrangements. This was not related to their level of income or the ages of their children.

- o In another study, the more frequently the child care arrangements broke down, the more likely the parents were to be in poor mental and physical health.

- o In several large-scale surveys of companies that help their employees with their child care needs, over 85% of personnel managers polled felt that these services improved their ability to recruit. A sizable majority (from 90% to 72%) also felt that morale and absenteeism had been substantively improved.

Sources: Emlen & Koren, 1985; Perry, 1978; Magid, 1983; Burud, Aschbacher, & McCroskey, 1984; Shinn & Wong, unpublished.

MYTH 9: WORK AND FAMILY ISSUES ARE A WOMEN'S ISSUE.

If one only considers child care, then work/family issues still remain more a women's issue because women continue to take and are expected to take responsibility for making child care arrangements. As Art Emlen (1985) who conducted the Portland study states, "Child care is a family problem, but at the present time, women are the solution."

If one broadens the net to include balancing work/family responsibilities, men are affected every bit as much as women.

Fact: MEN AS WELL AS WOMEN ARE FEELING WORK/FAMILY STRESS.

- Men are spending more time in child care and housework. From 1965 to 1981, the average man's time in family work went from 1.6 to 2.0 hours per day. His proportional share of family work from 20% to 30%.
- In the Quality of Employment Survey, the same proportion of men as women in a nationally representative sample (one third of the sample) reported a high degree of conflict between the demands of their work and their family life.
- In a survey conducted by Bank Street College at a large corporation, 41% of the workers experienced a great deal of work/family interference. In a regression analysis, the sex of the worker was not a significant predictor.
- A 1985 study of 650 employees in Boston found that the stress of balancing work and family responsibilities was the most significant predictor of depression among employees, no matter their gender.

Sources: Pleck, 1986; Quinn & Staines, 1979; Galinsky, Hughes & Shinn, unpublished; Googins & Burden, unpublished.

As people begin to accept these changing realities, they often say, "OK. I agree that things are changing and that the family should not bear the complete brunt of these shifts. Then what's the solution?"

MYTH 10: THERE IS ONE ANSWER TO WORK/FAMILY PROBLEMS.

Fact: THERE ARE MANY SOLUTIONS TO HELPING PARENTS BALANCE THE DEMANDS OF THEIR WORK & THEIR FAMILY ROLES.

- In 1978, 110 employers supported child care initiatives.
- In 1985, approximately 2500 companies had child care initiatives. These included:

Type of Child Care Assistance	Number of Companies
On - or Near - Site Child Care Centers	
Corporate	150
Hospitals	400

Public Agencies	30
Family Day Care Support	50
After-School Child Care	75
Sick Child Care Initiatives	20
Information and Referral	500
Financial Assistance	
Vouchers	25
Discounts (50% with corporate contributions)	300
Comprehensive Cafeteria Plans	150
Flexible Spending Accounts/Salary Reduction	800
TOTAL	2,500

As many as 1,000 employers provide corporate contributions to local child care programs, and another 1,000 employers offer parent education seminars at the workplace.

Source: Friedman, The Conference Board, 1985.

These initiatives are all responsive to the culture of the company and the specific needs of its workforce. They include money for families to pay for sick child care as well as resource and referral to child care arrangements. If one includes the companies that have flexitime and part-time work, maternity and paternity leaves, and personal leave time, the number of companies involved is much larger.

It has been feared that providing family-responsive policies would interfere with the family's domain, "sovietizing" the family. Yet none of these initiatives overstep this boundary. They are characterized by providing the family with resources, information and choice so that parents can perform their dual roles more effectively.

Fact: IF IMPROVEMENTS IN HELPING FAMILIES ARE TO CONTINUE, NUMEROUS SOCIETAL INSTITUTIONS WILL NEED TO BE INVOLVED.

For the past several years, there has been the hope that the private sector would assume responsibility for making change. Yet the vast majority of employed parents don't work for the large corporations that have been the leaders in developing these new initiatives. In order to help parents, I believe that numerous facets of society must be involved - corporations and small businesses, the government on a federal, state and local level -- as model employer as well as funder and policy setter -- unions, churches, schools, and social service agencies.

The family has changed. Rather than deny or debate whether it is good or not, we must all -- individually and collectively -- turn our attention to making life better for children and their families.

PANEL 8 TOPIC: CHANGING ORGANIZATIONAL CULTURES TO BUILD ORGANIZATIONAL EFFECTIVENESS

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PANEL 8 REPORT

CHANGING ORGANIZATIONAL CULTURES TO BUILD ORGANIZATIONAL EFFECTIVENESS

I. THE ISSUES:

Definition: Organizational culture is "the way things are done around here; the agreed upon norms and unwritten rules of the game."

A. Identification of the need for organizational culture change is key.

B. Culture change has the highest risk, longest implementation period but promises the greatest long-term payoffs. Effective cultural change requires sustained commitment to reach goals.

C. Organizational culture changes may be forced by the demographic changes in our workforce (females, minorities).

D. Build an organizational culture which is capable of adapting to a changing environment.

II. RECOMMENDED ACTIONS:

A. Identification of values upon which organization is based is important, but equally so are the behaviors of individuals to be changed.

1. No large organization has one culture; it has several multi-cultures within the larger whole.
2. Defining the future course is an essential factor for organizational culture changes to be effective.

B. To be successful, organizational culture change must:

1. Have a vision of "what you want to be;" and be codified for all to understand
2. Identify how/what you need to do to get there.

3. Measure your progress to establish where you are and when you've reached your goal.

4. Top management support via role models must be visible and continuous. Funding crises must not diminish the priority of effort.

    a. Change agents from without and within the organization are required.

C. Organizational culture change must be top down and bottom up while breaking through middle management barriers.

1. While the entire organization is impacted, small-group change is critical, with experienced line managers continuing the change process over the long term.

2. Private and public processes for change are not dissimilar.

3. Change is particularly difficult to sustain in times of crises, yet crises often form the basis for cultural change.

III. RECOMMENDED PRIVATE/DEFENSE COOPERATIVE UNDERTAKINGS:

A. The defense and private sectors should share experiences of organizational culture change.

B. Removal of change agents sends the wrong signal and, therefore, continuity of effort and commitment should be emphasized.

IV. SUMMARY:

- Developing an organizational culture will result in adaptive and effective organizations which are capable of successfully reacting to a changing environment.

ISSUE PAPER

CORPORATE CULTURING: TOP DOWN OR PARTICIPATIVE?

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Related Background Papers

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CORPORATE CULTURING: TOP DOWN OR PARTICIPATIVE?

Corporate culture vultures are swooping down on our organization. The vultures are consultants who advise chief executives to pick apart their old cultures and piece together new ones. When these executives attempt to implement their newly designed cultures by directives, reminders, speeches, memos, and ceremonies--sometimes with rolled-up sleeves just to look like the workers--they are disappointed with the results. Culturing in this way is very expensive, time consuming and, perhaps, impossible.

It's no surprise. Social scientists have known for the past 30 years that you can't shove massive change down people's throats. They will resist at every step along the way. When you're not looking, things will go back to the way they were.

Now for the real surprise. Of all the things that can be pushed down on the employees by top managers and their consultants, the last should be culture. If culture is to do some good, both as a concept and a tool, it will do so by giving the human side of the organization the center stage it has long deserved. It will capture the unifying force behind the family and community aspects of a company, much like personality embodies the individual. One can no more dictate a cultural change than a personality change. Not to recognize the utterly human quality of culture, in its creation and especially in efforts to change it, is to misunderstand what culture is all about.

An alternative to the vulture is the beaver: on the ground, in the water, building with the basics, bottom up, and not afraid to get his hands dirty. While it is glamorous to work with top executives--presumably where all the power is--culture change has to take place throughout the organization--where the real power is. It has to take place through self-determination and involvement: Every single work group has to feel the need for a cultural change, determine the direction for change, and participate in the change itself. Can top management sell people on what to value or how to develop meaning and commitment? I don't think so.

Let's define culture as "the way things are done around here," that is, the agreed-upon norms, the unwritten rules of the game. Let's define culturing as first developing just what these norms are and then implementing these throughout the organization. Now the debate begins: Who should develop the norms and who should conduct the implementation? Should it be top management or a total participative effort? Should it be the vultures or the beavers?

I believe in the participative approach: consultants working with the whole organization in a collaborative manner, not catering to any select group. During the past 15 years, I have been culturing with all types of organizations. I have found that cultural change is relatively easy and lasting if done consistently with the roots of our own American culture: "of the people, by the people, and for the people."

Specifically, participative culturing can be accomplished through a five-track program of planned change: (1) the culture track, (2) the management skills track, (3) the team building track, (4) the strategy-structure track, and (5) the reward systems track. The first track initiates the desired change in culture (described below), while the last four tracks ensure that the new culture will retain its zest and vitality into the future.*

Step One of the culture track is for all group members throughout the organization (subdivided into however many workshop sessions are required) to list the norms that currently guide their behaviors and attitudes. Sometimes it takes a little prodding and a few illustrations to get the process started. Once it begins, members are quick to suggest many norms.

For an organization whose culture is rooted deeply in the past, some of the norms that might be listed include: Don't disagree with your boss; don't rock the boat; don't share information with other groups; look busy even when you are not; don't trust management; protect yourself at all costs.

As these norms are written on a flip chart for everyone to see, there is considerable laughter and amazement as people become aware that they have been seducing one another to abide by counterproductive rules. But it is not that each individual made a conscious choice to behave this way. Rather, as each individual entered the organization, each was taught the expected behavior by his own work group. It is the group that enforces its own culture. That's how the culture first formed, and that's how it will be changed.

Step Two is for all group members to discuss what type of behavior is necessary to make the organization successful for today and tomorrow--not yesterday. Even when a corporation has a very dysfunctional culture from the past, members, as individuals, are aware of what changes are needed for the organization to survive and prosper in the future.

Step Three is for all group members to develop a list of the new norms that will move the organization forward. By now the members begin to realize what impact the unwritten rules have had on their behavior. Group members are relieved to learn that they no longer have to pressure one another to be dysfunctional.

For organizations needing to be more adaptive and responsive to modern times, some of the new norms that might be listed include: Treat everyone with respect and as a potential source of valuable insights and knowledge; be willing to take on responsibility; initiate changes to improve performance; congratulate those who suggest new ideas and new ways of doing things; be helpful and supportive of other groups in the organization.

Step Four is for all group members to identify culture-gaps: The contrast between the desired norms (Step Three) and the actual norms (Step One). One classic culture-gap, for example, is: "Try new ways of doing things" (desired norm) versus "Don't make waves" (actual norm). Large gaps that persist will eventually put the company into a culture rut. This defeatist condition occurs when the actual norms continue to hold back the organization, day after day, month after month.

Since various groups within the same organization can have very different cultures (due to different people, histories, leaders, incidents, and markets), there will be different types of gaps requiring different kinds of cultural change. Such cultural differences are overlooked by top-down vultures who generally assume "one culture for all."

The size of culture-gaps follows the classic shape of the organizational pyramid. Because culture-gaps are smallest at the top of the hierarchy, executives frequently have trouble discerning the magnitude of their firm's cultural problems. For example, executives often believe their own rhetoric and, while they say they reward creativity and innovation, forget that actions speak louder than words. Worse yet, executives choose to ignore rather obvious cultural problems--obvious to anyone else, that is.

Recently, I was asked to conduct a three-day seminar for the top executive group of a large manufacturing company on the topic of corporate culture. I suggested that a representative survey be administered across all company divisions, using an instrument that measures the troublesome culture-gaps of a firm. After a couple of weeks, the vice president of human resources got back to me with this response: "No, we had better not do this. I don't think the executive group really wants to know what is going on in the company. Besides, we can't take the chance of surprising them with the results of your survey."

Shortly thereafter, on separate occasions, I met with three other large corporations. I shared the above anecdote as an example of a common culture problem. In each case the response to my story was: "That must be our company you're talking about!"

In comparison to small culture-gaps at the executive level, culture-gaps are largest at the bottom of the hierarchy where the gaps also reveal alienation and mistrust. Here the work groups can explain what is meant by the norm: Don't trust management. In essence, work groups often see management as: Up to no good; always trying to deceive them; getting caught up in fads to fool, control, and further manipulate them; thinking the workers are so stupid they can't see what's behind management's latest whim.

Essentially, this difference in cultural outlook between the top and bottom of the organization is precisely why a top-down approach is doomed to fail. Even with the best intentions by executives and top-down consultants, every dramatic change in behavior, symbolic deed, or fiery speech will be discounted by the people below. I have seen instances where executives have tried everything to prove they are sincere about cultural change, but to no avail. This frustration can continue for years. Eventually, top management gives up and the grass-roots of the organization are still in a rut.

Knowing all this, participative consultants have to work especially hard to get each work group, including the executive groups, to meet one another half way. With a minimum of finger pointing, each group charts a cultural change that includes being receptive to overtures by the other groups. For example, various work groups would include norms such as: Give management another chance, assume good intentions.

Step Five is for all group members throughout the organization to implement their new cultural norms, thereby closing the culture-gaps. Merely listing and stating the new norms, however, is not enough to ensure a successful change in culture. Members have to develop agreements that these new norms will indeed replace the old norms, and that this transition will be monitored and enforced by every work unit. (The next four tracks of the five-track program must be implemented as well.)*

In a large chemical company undergoing participative culturing, each new norm was written on an index card and given a number. Each member in a work group was responsible for monitoring several norms and calling attention to subsequent behavior that did not conform. It got to the point where group members didn't cite the norms anymore, only the numbers. Statements would be heard like: "You just committed a number twelve." "You pulled a seven on me." The members now had their own secret code, norms, and commitment to make the new culture work. Executives did not have to sell them on cultural change; in fact, executives were soon pressured by these groups to initiate change at the top!

It should be evident that the thrust of participative culturing is outward and upward, originating from the inside of each work unit. This is in marked contrast to top-down culturing where the thrust is downward and inward, originating from the outside. Participative culturing makes the change effort contagious; top-down culturing makes it something to oppose.

Corporate culture vultures thus assume that only those on the top have the exclusive foresight, experience, and knowledge to determine strategy, structure, and culture for the firm--just what chief executives like to hear! It turns out that the top-down approach to introducing change worked best when the organization (and all the world) functioned just as a simple machine: stable, predictable, orderly, and with employees as perfectly compliant cogs in the wheel. Now we have future shock, complex problems, turbulent environments, and enlightened workers--a dynamic situation that resembles an ever shifting web of human, institutional, and international relationships, more so than a mechanical apparatus. What if the continual use of the top-down approach for this fundamentally different kind of world is no longer effective? What if the top-down approach breeds the very cultural problems we are trying to solve by the unintended consequence of further destroying the intricate web of human relationships?

If you want people to be risk taking, creative, innovative, and market-driven--just what is needed for success for most organizations today--you must involve them in cultural change at the outset, at every level, in every work group. Participative consultants seem to appreciate the new complexity of the world and the need to make use of every available human resource. It is the participative consultants who offer corporate culturing for the future.

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* For more detailed descriptions and examples of changing culture, including how changes in management skills, team efforts, strategy, structure, and reward systems are needed to support any effort at cultural change, see Kilmann, R. H., Beyond the Quick Fix: Managing Five Tracks to Organizational Success, Jossey-Bass, San Francisco, 1984.

25/04/86

PEER COMPETITION IN DOD

NEW VARIATIONS ON AN OLD IDEA

THE IDEA

Competition is an exceptional motivator. It spurs efficiency and effectiveness, initiative and innovation. Defense organizations can't compete with each other in the strict free market sense, so we look for other ways to establish competitive conditions. One of these has been the competition under OMB Circular A-76 between government activities which operate Defense installations and private firms. Whether the winner is the in-house organization or a contractor, we have benefitted from increased quality and efficiency.

A number of Defense commands have been stimulating competition another way, by sharing comparative performance information among support activities. We call this Peer Competition. This kind of feedback is sharpening performance and customer service in functions like accounting, facilities and equipment maintenance, food service, and supply.

TYPICAL APPROACH

Variations abound but a typical application works like this:

Step	Example (Tactical Air Command (TAC) Facilities Maintenance)
1. Areas in which results must be attained (key results areas or KRAs) are identified. This is to ensure that later the performance results being compared are true measures of important organizational activities.	1. One of the key results areas (KRAs) identified for TAC facilities maintenance (civil engineering) is "customer support"; as a service activity, they view this as fundamental to orgnizational excellence.
2. Performance indicators are defined to measure attainment within key results areas.	2. The TAC engineers have defined work order performance as a critical indicator of customer support. Work orders involve activities such as installing a new plumbing system or paving a road. The indicator is: $\frac{\text{Work Orders Accomplished}}{\text{Work Orders Programmed}}$

3. Using defined indicators, results are measured and all organizational elements doing similar work are provided feedback on how their performance compares with all others.

3. There are 18 geographically separated installations where TAC engineers operate and maintain facilities (buildings, roads, and grounds). Every month, each receives a report showing how it did compared to all other TAC installations. Table 1 is the work order performance page from the report as of 31 January 1986.

TABLE 1

CUSTOMER SUPPORT (WORK ORDERS)

FUNCTIONAL ACTIVITY REPORT **Data as of 31 January 1986**

TACTICAL AIR COMMAND - CIVIL ENGINEERING - KRA: CUSTOMER SUPPORT (WORK ORDERS)
2A: [Work Orders Accomplished/Work Orders Programmed to be Accomplished] x 100

Goal: 80%

6-Mo Rank	Installation	6-Month Average	% Programmed Accomplished						Monthly Rank					
			Aug-85	Sep-85	Oct-85	Nov-85	Dec-85	Jan-86	Aug	Sep	Oct	Nov	Dec	Jan
1	A	96.33	100.00	88.00	100.00	90.00	100.00	100.00	1	5	1	4	1	1
2	B	95.17	100.00	92.00	100.00	87.00	92.00	100.00	1	3	1	7	9	1
3	C	94.67	78.00	100.00	100.00	90.00	100.00	100.00	9	1	1	4	1	1
4	D	94.18	81.80	83.30	100.00	100.00	100.00	100.00	7	8	1	1	1	1
5	E	88.27	91.60	86.00	85.00	85.00	91.00	91.00	5	6	9	10	10	8
6	F	88.25	100.00	94.10	57.00	82.40	96.00	100.00	1	2	17	13	7	1
7	G	88.00	100.00	81.00	88.00	87.00	84.00	88.00	1	10	6	7	13	10
8	H	84.32	75.80	84.20	63.00	92.90	97.00	93.00	10	7	16	3	6	6
9	I	81.60	80.00	80.00	88.00	84.60	82.00	75.00	8	11	6	11	15	14
10	J	78.11	66.70	44.44	87.50	100.00	100.00	70.00	11	18	8	1	1	16
11	K	77.22	44.44	90.90	80.00	90.00	83.00	75.00	16	4	13	4	14	14
12	L	75.97	50.00	81.80	90.00	75.00	67.00	92.00	14	9	5	15	16	7
13	M	75.35	35.00	80.00	81.00	84.10	87.00	85.00	18	11	11	12	12	11
14	N	74.58	83.00	73.00	81.50	50.00	93.00	67.00	6	13	10	17	8	17
15	O	74.50	40.00	50.00	81.00	86.00	100.00	90.00	17	17	11	9	1	9
16	P	71.82	50.00	59.20	68.75	78.94	90.00	84.00	14	15	14	14	11	12
17	Q	59.33	60.00	66.60	52.00	71.40	23.00	83.00	13	14	18	16	18	13
18	R	54.15	63.16	57.10	63.64	35.00	39.00	67.00	12	16	15	18	17	17
	Mean	80.66	72.19	77.31	81.47	81.63	84.67	86.67						

RESULTS

In this example, there has been a 20% improvement in customer support since Peer Competition feedback was started. Overall, performance trends are positive for over 70% of the measures now in place in two major DoD commands.

People involved generally agree that:

- Measurement is a good idea.
- It helps improve performance.
- It helps make clear what is expected.
- It helps them see how they stack up with others and makes them want to improve.

The Peer Competition approach works when participants believe what's measured is important, is within their control, can be fairly compared, and will not be misinterpreted and used against them.

ISSUES

Despite successes, Peer Competition sometimes meets with resistance. We would like ideas for dealing with:

- Fear or distaste for competition (or concern that it will be disruptive).
- Perceptions that it is too involved or too costly.
- Difficulty in defining appropriate performance indicators, particularly for white collar functions.

We'd also like dialogue about implementation issues:

- Degree of senior executive involvement (both line and staff).
- Setting standards or goals.
- Giving rewards and recognition.
- Measuring customer satisfaction.

PLANS

Experience with several applications during the past two years suggests a conservative 1-4 return on investment. From an Office of the Secretary of Defense perspective, we want to encourage more field organizations to adopt (and adapt) the process. We want Defense installations to benefit from performance measurement and comparative feedback wherever and in whatever way it makes sense. We are also committed to relieving installation commanders from unnecessary regulations, restrictions, and micromanagement. We will, therefore, be promoting Peer Competition by assisting those who request it and publicizing success stories, rather than directing its use.

Office of the Deputy Assistant
Secretary of Defense (Installations)

PANEL 9 TOPIC: EMPLOYEE PRIVACY VERSUS THE CONCERNS OF THE ORGANIZATION: MEDICAL, DRUGS, AND DISHONESTY SCREENING

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PANEL 9 REPORT

EMPLOYEE PRIVACY VERSUS THE CONCERNS OF THE ORGANIZATION: MEDICAL, DRUGS, AND DISHONESTY SCREENING

I. THE ISSUES:

- Legal
  - Right to privacy and due process
  - Freedom from unreasonable search
  - Negligence law and contract law
- Protection of individual rights
  - Legitimate acts conducted in physical seclusion
  - Misappropriation of name for commercial gain
  - Publicity given to private life
  - Publicity placing persons in false light (slander)
  - Impact of detected drug abuse on future employment
- Effects on society
  - National and/or corporate security
  - Major health concerns -- absenteeism
  - Corruption of political process and society through drug profits
  - Taxing of law enforcement capabilities
- Policy formulation
  - Efficiency/safety or other sound basis as reason for testing
  - Use of screening/confirmation testing for policy execution
  - Pre-employment vs. "in service" testing
  - Alcohol vs. other drugs; same or different approaches
  - Segregation/blending of drug or health policy with personnel policy

- Testing
  - Trust (test accuracy, lab proficiency, chain of custody)
  - Voluntary testing; understanding personal implications

II. RECOMMENDED ACTIONS:

- Review of government regulation regarding drug abuse
- Create/determine organization policy regarding tolerance of drug abuse/misuse that is compatible with industry environment
  - Base policy on there being a problem needing correction that is identifiable, or upon a need to provide a drug-free environment conducive to improving efficiency and safety
- Create policy with management/labor involved in formulation
  - Communicate to all personnel; approach on corporate basis; define actions
  - Collective bargaining issue
- Creation/perpetuation of attitudes that drug abuse/misuse is not good or acceptable behavior
  - Frequent supervisor-level training to detect behavioral change which may lead to cause correction
  - Education, treatment of personnel
- Consider drug policy when considering defense contracts
- Recognize the unique authority of the military to test for drug abuse; private sector may not be able to use the same philosophy

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- Compile data/information in a single governmental agency from all sources in formats that are usable
- Document relationship of drug abuse and behavioral pattern/work performance leading to rehabilitation/termination

ISSUE PAPER

ISSUES INVOLVED IN ALCOHOL AND DRUG PROGRAMS IN THE WORKPLACE: A LABOR PERSPECTIVE

PANEL 9 - EMPLOYEE PRIVACY VERSUS THE CONCERNS OF THE ORGANIZATION: MEDICAL, DRUGS, AND DISHONESTY SCREENING

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SECOND NATIONAL FORUM
ON
HUMAN RESOURCES PLANNING

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ISSUES INVOLVED IN ALCOHOL AND DRUG PROGRAMS IN THE WORKPLACE: A LABOR PERSPECTIVE

For the past eight years I have acted as consultant to the United Steel Workers of America (USWA) in a unique relationship with the Department of Medicine at the University of Pittsburgh. During this time I have dealt with many health problems at many companies where the USWA represents the workforce. I have come to some general conclusions which I would like to share with you in regard to the implementation of any labor-management health program in the workplace. It is clear to me that some of the same issues are present in implementation of substance abuse programs, particularly as I regard these problems as health problems.

Unfortunately, in the past workers have experienced callous attitudes towards the protection of their health. Episodes such as that at Gauley Bridge in West Virginia, where we will never know how many workers were killed, have led to a high degree of suspicion of proposals by management for implementation of health programs. In my work with the Union I find that perhaps 70 percent of my effort is spent in explaining exactly what management is proposing and in reassuring worker representatives that the program is a genuine attempt to provide a concerned and professional response to a perceived or real problem.

This type of experience has led me to emphasize open communication as soon as possible in the development of a response to any health problem. It would be interesting to review the history of labor's suspicions of and cynicism toward companies in regard to workplace health problems, but that is not the major purpose of this paper. However, I think it is important to point out that ignorance on the part of health professionals who are attempting to deliver health care in the workplace is a major problem. Thus, education of the staff involved in any health program must form an integral part of any program.

The comments I have made in regard to general workplace health programs apply equally to alcohol and drug abuse programs. I can only encourage you to communicate as early as possible in the implementation of any screening and workplace alcohol and drug abuse program.

I would now like to turn to some of the problems I see in screening the workforce in a program dealing with alcohol and drug abuse.

LACK OF A GOOD DATA BASE

Every book and paper on alcohol and drug abuse is replete with statements on the extent or prevalence of the problem. However, my perception is that the epidemiological research, which is necessary to develop a scientifically-based response to the problem, is not yet adequate, even in terms of straightforward descriptive data. There are almost no acceptable data on the environmental causes of the problem, and, without this one, cannot design interventions and measure their efficacy with any confidence. I would encourage all of us to approach the problem with an open mind and to discard our preconceived notions with regard to extent, cause, and treatment of the problem. Often it has been pointed out to me that the growth of the EAP or similar programs demonstrates both the extent of the problem and our success in dealing with it. This is unfortunately not the case. Many such programs are run by persons who are more salesmen/women than health professionals and who have developed intervention programs which are not based upon any objective information.

IMPACT OF DRUG ABUSE AND ALCOHOL ABUSE IN THE WORKPLACE

We are all aware of the impact of alcohol abuse when it gets to the point of impairing job performance. There are, however, many persons who may fit the definition of being alcohol and drug abusers in whom no measurable deterioration in job performance has occurred. If there were clear evidence that either subtle deterioration had already occurred or that these persons would go on to have performance problems, then a screening program would have a better basis for implementation. This is a significant point from both an organizational and legal viewpoint, for in my opinion, the employer is limited in what he can do with information on alcohol and drug abuse if no impact on the job can be documented.

I recently completed a study of industrial deaths in Allegheny County, Maryland. In only one instance was there a clear alcohol involvement and in no case did we obtain evidence of drug abuse. I have discussed our data with two other groups doing similar work, and they seem to be obtaining similar findings. National safety organizations have for many years implicated alcohol and drug abuse in accident incidence, and yet in fatalities, this does not seem to be the case. Blaming the worker is very easy, but in our study more than 70 percent of the fatalities could have been avoided by adherence to safety standards which had been violated. I believe that it is urgent to develop information on the impact of substance abuse on the workplace and also to develop information on whether it is substance abuse by itself or synergism with other workplace problems which is responsible for the impact on the workplace. We must also document that impact more carefully; otherwise, labor will inevitably, and in my opinion quite rightly, see the substance abuse program as another excuse to blame the worker for any workplace problem.

Once again, I wish to emphasize how important it is to have open and direct communication in the implementation of any workplace substance abuse screening program.

TECHNICAL PROBLEMS

Before I address some of the ethical issues regarding screening programs, let us deal with technical problems.

PREDICTIVE VALUE

In alcohol abuse, deterioration of job performance is frequently used as the endpoint for entry into a rehabilitation program. At this point, biological tests will almost certainly indicate that a problem exists. The same tests, done earlier, would not necessarily identify those persons who would go on to have job problems but would just identify those who are abusing alcohol or drugs. Until we have evidence that this condition impairs performance (or, in sensitive positions proves to be a security risk), I believe that we would be on very questionable legal grounds in disciplining or dismissing that employee. Of course, if there had been negotiation and a contract established with worker representatives which defined the procedures to be used in the case of a positive identification on a screening test, perhaps the employer's legal situation would be somewhat better.

ACCURACY AND PREDICTIVE VALUE OF ANY TEST PROCEDURE

The use of biological tests to determine whether an employee is using alcohol or drugs is fraught with problems. Collection and analysis must be done carefully, from both a legal and a technical point of view. The effect of contamination of a sample cannot be predicted, and thus absolute adherence to a standardized collection and analysis procedure is essential.

Even when the collection and analysis procedures are of the highest calibre, it is almost inevitable that something will at some time go wrong. If there is any possibility that this has occurred, then the employee must be given the benefit of the doubt.

Any biological test has certain characteristics that must be carefully defined before it is used as a screening instrument. These include the specificity and sensitivity of the method and its resulting predictive value.

Sensitivity deals with the issue of the positivity of the test in question. That is, if there are 100 people screened who are known to have a problem, how many are picked up by the test? It would be almost impossible to have a test which was 100 percent sensitive, i.e., positive in all those who were in fact abusers. We must also define very carefully what is meant by positive. It is now widely recognized, for example, that biological tests for marijuana may be "positive" many days after use. If somebody is an occasional user, there is no evidence that there is any potential for impairment of performance, and the exclusion of such persons from the workplace based upon such a test would, in my opinion, be unacceptable.

The reverse side of the sensitivity issue is specificity. Increasing the sensitivity of a test usually means decreasing specificity. Specificity is defined as negativity in the normal person, i.e., if the test is performed on persons who are definitely known not to be abusers, the test should in ideal circumstances always be negative. This is unfortunately not the case. I have already pointed out that increasing sensitivity will decrease specificity, so that some very difficult decisions have to be made on the setting of levels for positivity and negativity of tests. Let us do a hypothetical calculation in which I will also introduce a third important term, namely, the predictive value of a positive on the test. If somebody has a positive test, how much of the time is that test telling us that there is a real positive? The predictive value of a test is intimately tied in with the prevalence of the disease or problem in the population being screened.

Let us assume that we wish to use a test which is designed to identify alcohol abuse. This test has a sensitivity of 95 percent and a specificity of 95 percent, which would be a test of unusually good performance. We can obtain rough figures on the prevalence of alcohol abuse in a working population, and for the sake of demonstration I will use a figure of 15 percent. This means that in a working population of 1,000, we would expect to find 150 persons with an alcohol problem. If our test has a sensitivity of 95 percent, we would identify 150 x (.95) or 143 of the true abusers and would miss 7. The remaining 850 would not have a problem, but because our test has a specificity of 95 percent, we would actually identify 850 x (.05) or 43 as positive although they were really not positive. These are the so-called false positives and will always have to be taken into account in any screening program.

These hypothetical results mean that the predictive value of the test for a positive result is 44/(43+44), or roughly 50 percent. That means that, even with a highly "accurate" test, we still know only that 50 percent of our positives are real positives. The hypothetical test I just described is not unusual. Many biological tests have much lower sensitivities and specificities, and thus they have much poorer predictive values. Since the predictive value is influenced by the prevalence of the problem in the population under study, if the prevalence of the problem is lower, then the predictive value will be much lower. I can give you examples of tests which have predictive values of 1-5 percent, so that most of the positive results would be false positives.

It is thus imperative that the characteristics of tests be investigated before they are used in workplace screening programs, and that calculations be made of the number of tests which will be false positives. This will always demonstrate that no test by itself is adequate and that a procedure for confirming and amplifying the results must be in place. Clearly such procedures must be discussed and supported by the workers involved, or cooperation will be poor and will cause such labor-management confrontation that there will be justifiable pressure for their abandonment.

There are thus scientific and technical issues, in addition to ethical considerations, for some of the other concerns I have regarding screening programs.

CONFIDENTIALITY

Unless the performance of tests is mandated, employees will not participate in an abuse program unless it is confidential. Even if the program is mandatory, confidentiality is necessary for medical ethical reasons and because of the technical inaccuracies I have already outlined. These requirements should be met whether the screening is pre-employment or during the course of employment.

FURTHER TESTING

As I have already pointed out, a positive value on one test by itself must be confirmed by repeat testing and perhaps different tests. At all stages, the employee or potential employee must be kept fully informed of the results of the tests and the reasons for further test procedures. There are neither ethical nor practical grounds for performing tests unbeknown to the employee on biological samples supposedly taken for other reasons. Once again, one test result may be incorrect, and you are inevitably going to have to repeat or perform other tests. Secondly, if tests are performed without informing the worker (patient), it is my position that you are committing an assault.

TRACKING

As there is always the possibility of contamination of a sample, an audit track must be established both from a technical and legal standpoint.

PREVENTION

A commitment to rehabilitation and prevention must be built into any program. Without this component, a screening program becomes just a means of disciplining and firing employees. Such a prevention and rehabilitation program must, to be sucessful, have the full support of the employees and their representatives. The only way this can be obtained is by full communication and discussion before implementation of the program.

IN SUMMARY

There are problems with all aspects of drug and alcohol abuse screening programs.

- We have poor or no data on the prevalence of the problem.
- We have poor understanding of how to intervene and no good assessment of the efficacy of the interventions we use.
- We do not apply standard epidemiological procedures to evaluate tests used in screening programs, such as their sensitivity, specificity and predictive value.
- We should appreciate the technical problems with such tests.

- Because of technical problems and ethical considerations, programs should be implemented with full discussions and agreement with the potentially affected employees.

PANEL 10 TOPIC: IDENTIFYING AND INCREASING THE CONTRIBUTION OF HUMAN RESOURCES TO THE BOTTOM LINE: MISSION EFFECTIVENESS

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PANEL 10 REPORT

IDENTIFYING AND INCREASING THE CONTRIBUTION OF HUMAN RESOURCES TO THE BOTTOM LINE: MISSION EFFECTIVENESS

I. THE ISSUES:

- Definition of the mission:
  - Determine/identify the organization's true mission -- what is the bottom line?
  - Determine the human resources (HR) mission, and its relationship to the organization's bottom line
- Demonstrate contribution of human resources to the mission/bottom line:
  - Measurable/quantifiable human resources input to mission effectiveness
  - Relationship to organization's mission
- Obstacles/roadblocks to effectiveness
  - Resistance to change from organization and staff
  - Restrictions on operations (legal/regulatory, environmental, assets/resources)
- Identification/clarification of target audience (customers): line managers; chief executive officers; employees; shareholders (Congress)
- Responsiveness to situations: business needs; organizational requirements; external/internal factors
- Degree of commitment by the human resources manager:
  - Accountability for mission accomplishment
  - Willingness to take risks

II. RECOMMENDED ACTIONS:

- Conduct mission analysis:
  - Gather information and identify problem
  - Establish goals, objectives and measurable tasks
  - Secondary missions
- Communications: Learn and talk the language of the target audience (customers)
- Develop Plan and System
  - Monitoring and data collection system
  - Selling and implementing the plan
- Evaluation and feedback on effectiveness
- Refinements, fine-tuning and repeating

III. RECOMMENDED PRIVATE SECTOR/DEFENSE COOPERATIVE UNDERTAKINGS:

- Continue the Forum, a worthwhile information-sharing endeavor
- Develop a collection of case studies aimed at examples of practical experience (success stories)

ISSUE PAPER

PANEL 10 - IDENTIFYING AND INCREASING THE CONTRIBUTION OF HUMAN RESOURCES TO THE BOTTOM LINE -- MISSION EFFECTIVENESS

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Related Background Papers

Fitz-enz, Jac, "HR Inc." *Personnel*, March 1986, pp. 16-24, American Management Association, New York.

Fitz-enz, Jac, "How to Market the HR Department," *Personnel Journal*, April 1986, pp. 34-41.

IDENTIFYING AND INCREASING THE CONTRIBUTION OF HUMAN RESOURCES TO THE BOTTOM LINE -- MISSION EFFECTIVENESS

The author's position is that the effectiveness of the Human Resource (HR) function has been limited by an incorrect self-perception. My experience over the past 17 years of dealing with the profession is that many HR practitioners view their mission as a quasi-social welfare function. Their focus is on doing "good things" for people and describing their work in terms of activities rather than results.

For practitioners who do have a more pragmatic view of HR, the problem has been a matter of not knowing how to express their contribution.

The common problem of both positions is one of language. The line management of any organization is focused on achieving certain levels of return on investment, profits and mission completion. Such managers use specific, objective, quantitative terms to describe their results, i.e., numerically expressed improvements in cost, time, quantity or quality. The HR manager often describes his or her work in subjective, qualitative terms. To further widen the gap, many HR managers do not know basic operating facts about their organization (this is less true in military units). As a result of this communications gap, the HR department is relegated to a secondary position.

Because HR people have become second-class citizens, they have come to believe that all news will be bad news. Their outlook is often negative when new ideas or programs are presented to them. This is particularly true in discussing measures of effectiveness. The first reaction is, "Why should we give management numbers to beat us with?"

We believe the answer lies in realigning HR people's perception of themselves and their department from that of being a tolerated expense center to a more positive view of the function as a human asset investment management center. Since behavior tends to follow perception, our experience is that such a shift frees people and focuses them on the possibilities and potential rewards of operating from the revenue rather than the expense model.

The enclosed articles have this idea as their underlying theme. When and if the perception changes, it is relatively easy to develop objective and quantitative indices of performance which hook the outcomes of HR to financial and production results of the organization. This methodology can be applied to government and military organizations as easily as private industry.

The attachments are offered as one proven method for helping HR to (1) identify the organization's objectives/mission, (2) analyze the organizational environment, (3) identify critical success factors and strategic alternatives, (4) set departmental objectives which directly serve organizational objectives/mission, and (5) develop a system of objective measures for assessing HR's contribution to the bottom line -- mission effectiveness.

Jac Fitz-enz, President, Saratoga Institute, Saratoga, CA

HR INC.

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The traditional view of the human resources department as an expense center is no longer valid.

Decades ago when the personnel department was little more than a paper-pushing employment and payroll service one could argue that this staff function had no connection with bottom-line profitability. Neither was it perceived as contributing to organizational effectiveness.

Through the first 60 years of this century employees were largely at the mercy of employers. Unions fought for better pay and working conditions, but otherwise employees were usually passive and dependent.

The simultaneous entry of the baby-boom generation into the work force and passage of the Civil Rights Act of 1964 irrevocably changed the employee-management relationship.

Today, like it or not, human resources have *become the most difficult* assets to manage. Although the human resources department has learned new skills and acquired new responsibilities, it is still struggling with an outdated strategic model.

In order to optimize its effectivness in the deregulated, highly competitive marketplace of the 1980s a totally new self-concept is necessary. The human resources department must be seen as a profit center in its own right.

MANAGEMENT EXISTS AT TWO LEVELS

Organizations are managed both strategically and tactically.

At the tactical level there are administrative and operational functions. Operations is responsible for producing the goods or services that the organization sells. Administration is concerned with supporting operational areas.

Strategic management transcends daily operations and administrative tasks, and relates to development and execution of total enterprise objectives.

This process begins with identifying the mission, clarifying an operating philosophy and values, and establishing overall marketing and financial objectives.

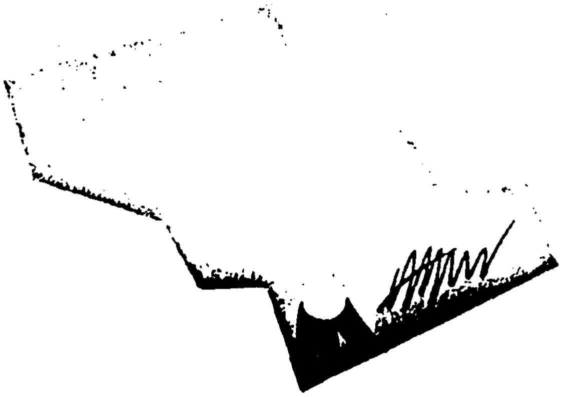
The process sets the tone for the development of operational systems, administrative procedures and behavioral expectations.

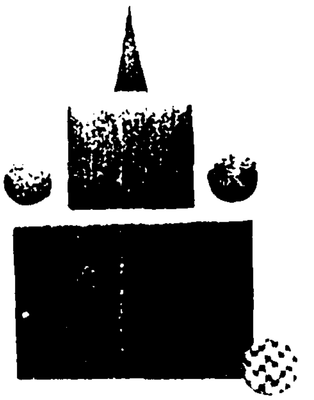
Daily operating behavior can be described by three points along a continuum. At one end there is the bureaucrat. At the other end is the intrapreneur, and between them is the administrator.

The dictionary defines *bureaucrat* as an official who works by fixed routine without exercising judgment. This has often been the label given to human resources practitioners who avoided risk and hid from confrontation behind the policy and procedures manual.

Administrator is described as one who directs or manages affairs of any kind. This is an apt description of the basically competent manager who can occasionally exercise some creativity in solving a sensitive problem.

The *intrapreneur* (an entrepreneur who operates inside an organization) is simply one who undertakes to carry out a new enterprise, most of-





ten one of his or her own creation. This person is the high risk/high reward individual who leads rather than follows.

Leadership and management of human resources departments today — and for the foreseeable future — will demand an ability to think and act strategically and a style that belongs toward the intrapreneurial end of the continuum.

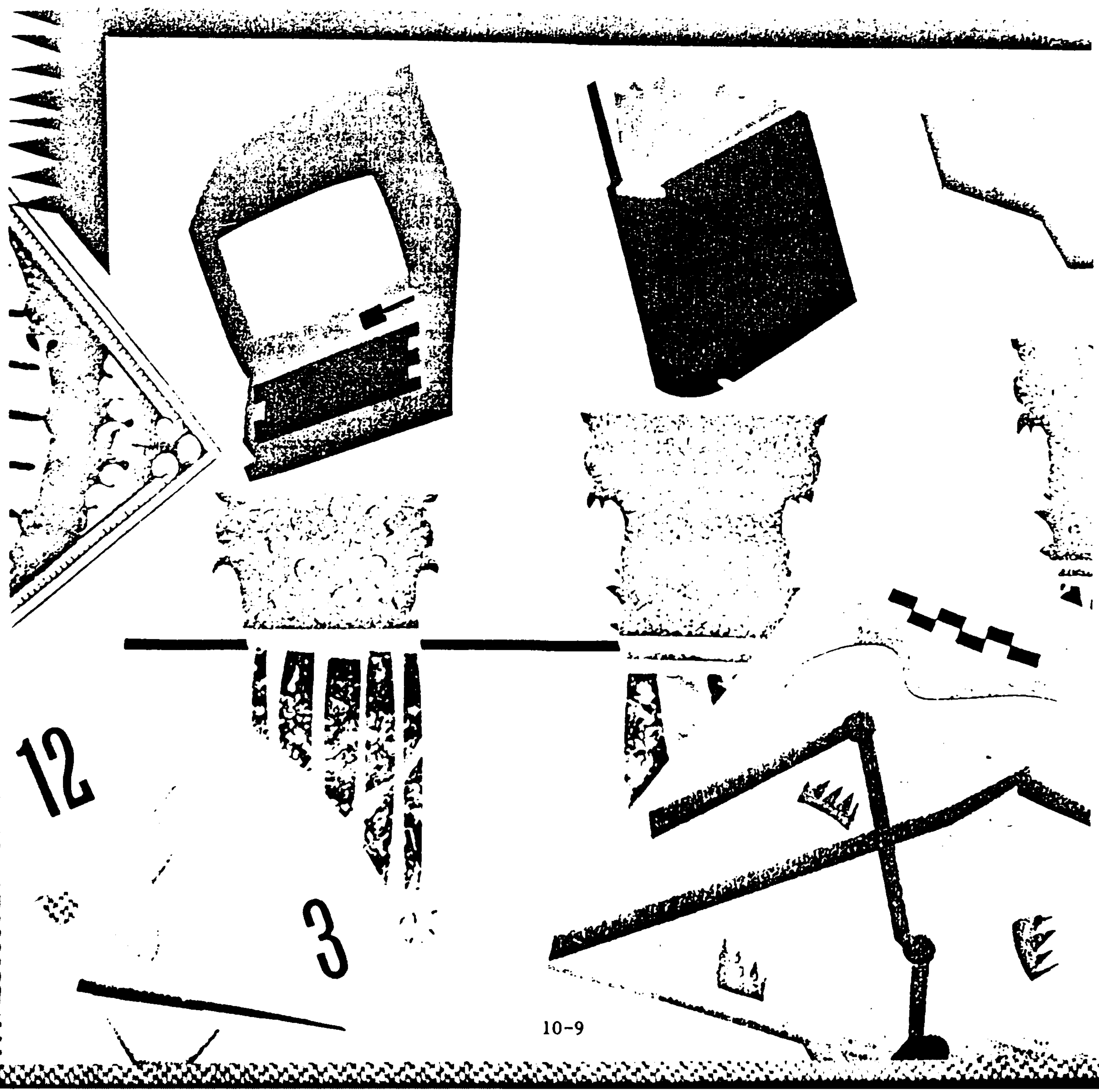
In order to make the switch from the bureaucratic, tactical model, I suggest you develop a new view of the human resources function.

HR INC. GENERATES INCOME

Picture yourself and your department as a company located outside the organization (ORG) that now employs you.

Think of yourself as HR Inc., a human resources product and service company. Think of ORG as your marketplace. The basic question is, "How will I go about doing business with my client, ORG?"

If you can do that, I promise you the result will be a fresh, constructive look at the organization that you serve.



The story of one young professional illustrates the point.

When he joined his company five years ago, he set out to create a new internal business environment. He was only the personnel manager is a relatively small organization, yet he found chances to demonstrate his ability to deal with both business and human issues throughout the company.

When the facilities manager left this man was asked to take on the facilities job.

It was supposed to be a temporary assignment, but he did such a good job that he was given other service department responsibilities until, at one time or another, he managed MIS, telecommuniciations and facilities in addition to personnel.

He showed he was not a power grabber because once he had the function running well he brought in a new manager and gave the department to another group to supervise.

Now, he has such a solid reputation as a

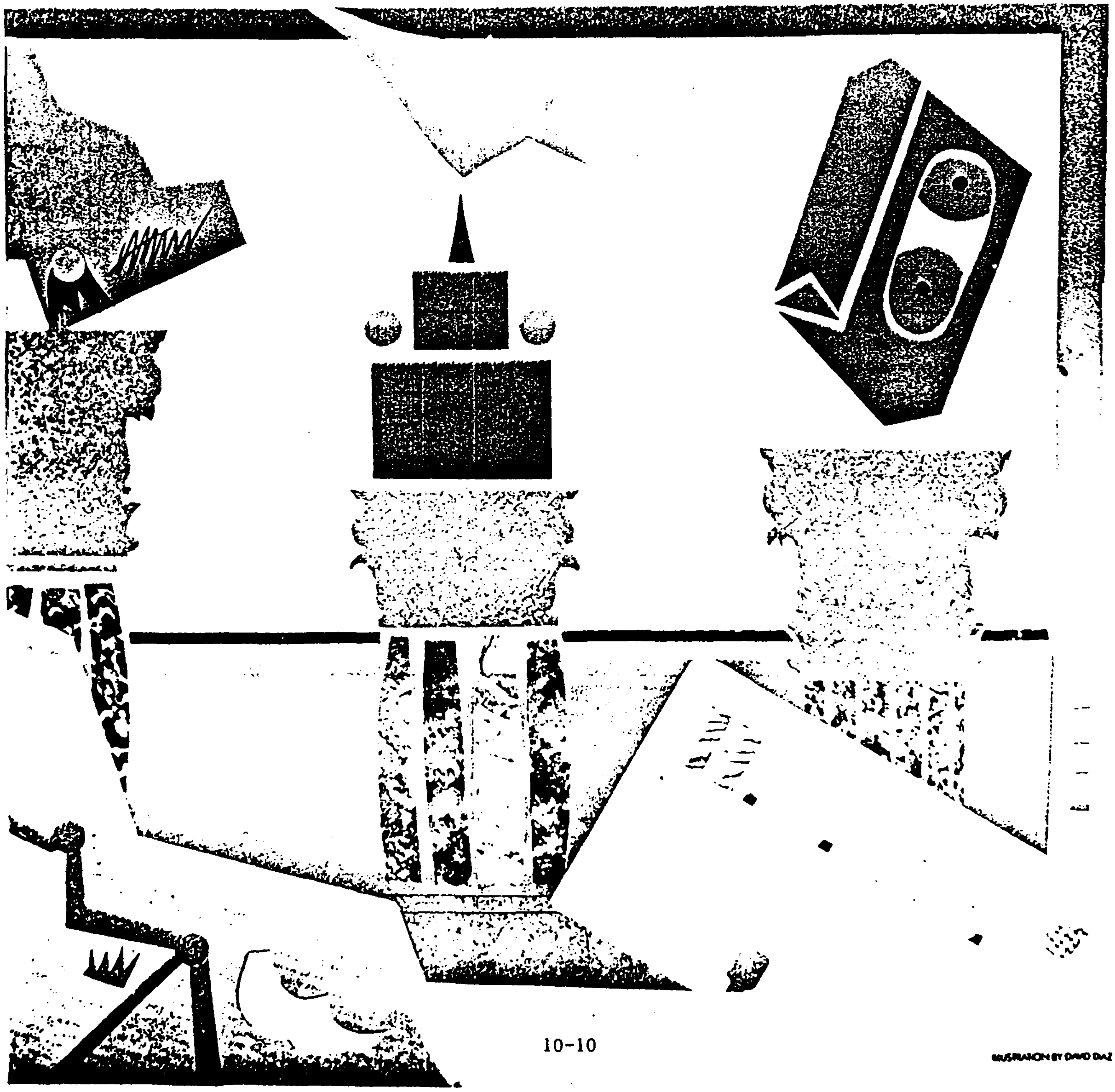


ILLUSTRATION BY DAVID DIAZ

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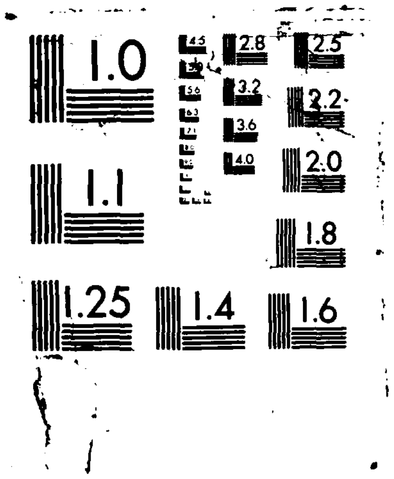
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businessman he can do practically anything he wants in personnel.

THE SUCCESS OF HR INC. DEPENDS ON A BUSINESS PLAN

Any change begins with self-evaluation. In order to operate as HR Inc. you must look at what might need to be changed within your department.

Your first question is, "What is our business?" In other words, what are you here for? You need to re-examine your product line and your marketplace..

Companies sell products and services that benefit their customers. What is the most fundamental benefit that your services have to offer ORG?

If you think it is hiring, paying, counseling and developing people, think again. That perception is at least one level away from reality.

To discover your business purpose think about the benefit that your work produces. For example, if you manufactured glass bottles you would be in the packaging business, not the glass business.

Once you are certain of your purpose and the needs of your marketplace the next question to ask is, "Am I prepared to deliver?" Your new business plan will answer that question.

Assume for the moment that you are going to talk with a banker or a venture capitalist about providing financial support for your new company.

How many dollars do you think you could pry loose if you talked about doing good things for people? Years ago, I listened to a training manager tell me with pride that his department had provided training for more than 3,000 employees the previous year.

I asked him why they did it. That is, what good came from it? After a long, awkward silence he said, "I don't know. I hope my boss doesn't ask that."

Figure 1: Life Cycle Stages and Activities

	LIFE CYCLES			
DEPARTMENT	**INTRODUCTION**	**GROWTH**	**MATURITY**	**DECLINE**
MARKETING	Publicize, create interest, gain acceptance	Maintain interest by reporting results	Discount price, offer customized versions	Phase out
PRODUCTION	Conduct and test	Refine based on feedback	Reduce costs for standard, add special features	Begin to shift resources
FINANCE	Budget adequate cash to build, test and market	Continue to support as needed	Direct income to customizing	Liquidate unnecessary equipment, cut spending
PERSONNEL	Assign senior staff to build	Begin to train replacements	Phase in junior staff	Reallocate personnel
R & D	Design and modify based on test data	Begin to develop follow-on product	Shift resources to different areas	Withdraw all support

Today organizations are reluctant to invest in a human resource service that does not show a clear and direct relationship to organizational effectiveness and profitability.

HR Inc. needs a business plan if it expects to be adequately funded. Business plans generally have five sections. They are:

- *Product* — What will we sell?
- *Management and organization* — Who will do what?
- *Market* — Who will we sell to?
- *Financial requirements* — How much money will we need?
- *Income projections* — How much money will we make?

The answer to all these questions is determined by the marketplace and your perception of how you intend to serve it.

Traditionally, services are designed and delivered based on a combination of what worked well in the past, what other companies in the industry and locale are doing, what customers say they want and what the company likes to deliver, rather than looking first at ORG's mission and objectives.

Our view is often tactical when it should be strategic.

THE CUSTOMER MUST BE EDUCATED THROUGH MARKETING

The choice of products depends on the marketplace, but that does not mean we must be totally reactive to the expressed needs of ORG. Sometimes we must educate the customer.

Often the customer is so immersed in daily activity that it fails to see the forest for the trees. We must bring to its attention facts that will force recognition of a need. This is called marketing.

Merchandising our services effectively will demonstrate the benefit of a particular item to the customer. Once we connect the customer with the benefit, the need arises naturally.

Products and services have life cycles. There are four stages to that cycle: development and introduction, growth, maturity and decline.

We tend to pay most of our attention to the first two stages in the cycle and then not manage the products through the last two. Products, programs, and services become obsolete.

If we do not monitor their effectiveness we may continue to pour resources into an activty that should be phased out.

In each stage of the life cycle there are appropriate marketing, production, financial, personnel and research and development activities. These activities are outlined in Figure 1.

HR INC. NEEDS A BUSINESS PLAN.

Each "department" within HR Inc. plays a role in the development, delivery or evaluation of products and services.

The functional role changes as the product or service moves through its life cycle. This model can be applied to any major product or service.

By effectively managing the involvement of these department functions you will deliver the right product, at the right time, to the right customer, at the right cost.

Presumably after establishing your product mix you will need to review the composition and organization of HR Inc. In light of the revamped product line, you must answer the question, "What will each person's duties and responsibilities be?" Do you have the right people to do the job?

Traditionally, we organize along functional lines. Some people are responsible for employment, others handle compensation, someone conducts training, and so on.

There is another method. It has been described by consultant Jim Walker as the Strategic Fit approach.

After you have completed the market and product research that is the foundation for your strategic plan, you can organize to fit the plan.

Rather than rigid functional departments, you can take a flexible, multi-discipline approach that uses employee talents and experience most needed for each program or service.

This not only improves both current efficiency and effectiveness, it also develops several multi-talented people who can be deployed quickly to solve future problems.

A by-product of this method is that it breaks down the factionalism prevalent in many human resource departments and focuses staff members on solving problems, rather than protecting their turf.

Since organizations must flex to meet the ever-changing demands of the marketplace, the question of staffing and organization never disappears.

Management is like a high wire act. Just when you have everything and everyone in place, some fool falls off his chair and the balance you worked so hard to create is gone.

Your job is to position everyone up on the wire, steady them, and start all over again.

HR INC. MUST KNOW THE CHANGING MARKETPLACE

Some will say that there is no question of the marketplace; they know their ORG very well.

Such an attitude implies that the market is in a steady state. More often than not, and particuarly in the past five years, change has been the rule.

Deregulation has hit banking, telecommunications, transportation and other businesses. Consumer demands, government intervention and new competitors have struck some industries so strongly that the very foundations have been shifted.

I have worked with organizations in fields from health care to electronics that recognized that they had to reposition themselves in a radically changing marketplace. What they knew about their market in the first half of the 1980s is not necessarily true for the second half.

Here are a few of the questions to consider:

- If your ORG has traditionally bought training as an act of faith in the past, does that mean you can count on it for the future?
- Are the levels of price, quality and delivery that were satisfactory three years ago going to be acceptable tomorrow and three years from now?
- How big is the market for each product or service?
- What stage of growth or decline is it in?
- Does the customer want state-of-the-art products and is it willing to pay for them?
- How aggressive do you intend to be in marketing yourself?
- Do you have competition from outside suppliers?
- What methods will you use to advertise your products and services?
- Who in HR Inc. is best suited to sell and who is best suited to design or deliver?

The importance of re-positioning is reflected in this example.

Several years ago a friend of mine joined a company as director of personnel. While interviewing for the job he was told repeatedly that the department had developed a bad reputation as a result of his predecessor's style.

My friend recognized that the first order of business was to reposition the department, which meant a new image. He started by changing the name from personnel to human resources.

He spent the next several weeks talking with people at all levels. This was his market research.

When he finished, he knew not only what was needed but how he would go about providing it. These were his product definition and market planning stages.

Over the next six months he developed and delivered a low cost, supervisory skills training program. He ran some tests and an experiment that showed management the positive effects of the program.

The study gave him good publicity around the company. Based on that single successful program he was able to gain the confidence of senior management and get the resources he needed to develop necessary employment and compensation products.

By taking a marketing approach to his new client he made the first critical sale which, in turn, made other programs possible.

Each set of circumstances, market conditions, demands a different set of responses. To presume that what sold yesterday is selling today and will sell tomorrow is suicidal thinking.

WHAT IS THE BENEFIT OF YOUR WORK?

THE BUSINESS PLAN SHOULD INCLUDE FINANCIAL NEEDS

The financial section of your business plan should show your banker or venture capitalist how much money you need to achieve certain goals.

It should explain in detail what is needed for research and development, capital equipment, staff-related expenses, product manufacture (program installation), marketing, and so on.

The plan should also include an income section that shows how and when the investor can expect to realize a return on the investment.

The following example shows what can happen when you approach your financial officer with a well-researched set of financial requirements:

After several years of rapid growth a young company began to stabilize. The human resources manager, being a good corporate citizen, did her best to curtail budget and operations.

Two years later, business improved. The employee population grew 25%, which created a need for more services and a revamping of personnel systems.

Despite the growth, the company was reluctant to increase the human resources staff. After struggling for six months the manager decided it was time to act.

She huddled with her section supervisors and developed a new business plan for the department. They laid out each of the major projects that had been given to them and they developed a staffing plan and a budget that were appropriate to each task.

Then, she sent an outline of the plan to her boss and asked for a meeting in one week in her conference room. On the appointed day she took her section heads into the meeting thoroughly prepared to explain and defend the plan.

She also took a handful of staff requisitions and purchase orders. Step by step they led the boss through each function, objective and return on investment projection for each expenditure.

As the boss agreed with the reasoning and projections they handed him a requisition or purchase order to sign. At the end of the meeting they walked out with a 30% increase in staff and the equipment to support them.

This personnel manager's efforts avoided the flaws that are all too common. Generally, the budget is constructed as if the department were an expense center.

Let me dispel that notion forever. Each employee is an asset. The human resources department is a revenue-generating, asset-management center.

If you are doing your job, you are generating revenue. When you screen applicants and counsel your hiring manager to select the most effective employee you are dealing in revenue generation.

Productive employees, by definition, produce more revenue than do non-productive employees. If they didn't why would go you through the screening process?

Why do you train people? Is it to keep the training staff out of the unemployment lines? Or, is it to teach people skills that they can use to generate revenues for ORG?

What about pay plans that give people the incentive to produce? What about employee assistance programs that help turn sick, unproductive people into healthy revenue generators?

The list of revenue generating work within the human resources department is impressive. As you construct your budget, turn away from the traditional expense approach and show how the investment in HR Inc. is going to pay off for ORG.

Human resources people have seldom thought of themselves as revenue generators. Therefore, the idea of income projecting may seem unnatural.

Now you know that you are an income generator. When you talk with your banker or venture capitalist at ORG, structure your presentation from the revenue side for a change.

Show how long it will take to recapture the cost of development. When will you, in effect, have repaid the investor? When will you be out of the red and contributing a steady flow of income to the company?

You may not be able to pinpoint it to a specific day or dollar, but you can make a reliable return-on-investment projection.

Learning how to forecast the return on investment of a proposed program or service is very helpful for making go/no go decisions.

People often find that projecting the monetary return on personnel and training programs is difficult. The problem is two-fold.

First, people try to deal with general results. Second, they skip a step. Usually, they list an expected result and then move immediately to speculating on the dollar value of the result.

These projections are little more than educated guesses. To make accurate predictions you must start with the specific outcomes that cumulatively add up to the general results.

Then, for each outcome, identify who will benefit and what the benefit will be.

The last step is to project the monetary and non-monetary values of each benefit. This process greatly increases income projection accuracy.

OPERATE IN A WORLD WITHOUT LIMITS

Do you know why the marketing people always seem so energetic and positive? Because they are playing on the revenue-generating side of the line.

Traditionally the human resources department focuses on reducing costs while marketing people work to generate income.

The problem with this, of course, is that as you work harder to squeeze another ounce of yield out of your people and equipment the amount of gain for each unit spent decreases.

Also, you are operating in a finite world. You will never drive the expense level down to zero.

On the other hand, the marketing department is operating in a world without limits. It can never outsell the market. It can always support spending because it can show return. It never has to "justify its existence."

The moral of the story is simple: It is a lot more fun to be an income generator than a cost cutter.

If you use this approach you will find that it generates several benefits for your company, your department and yourself:

- You will know what your business truly is, who you are and what your strategy is.
- That knowledge will lead to a significant reduction in confusion on the part of your staff and a concomitant increase in productivity.
- With your new broader consultant's perspective you will find or create opportunities to affect the organization in more meaningful and personally more satisfying ways.
- Your relationships with your clients will improve because you will be providing products and services whose benefits they recognize and value.

Aren't these reasons enough to establish HR Inc. and open the doors for business? ■

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How to Market the HR Department

Aggressive marketing of the human resources function will put you in the mainstream of corporate management. In the 1980s, failing to market yourself invites being shuffled aside.

Jac Fitz-enz

Success in business depends on many factors. Two of the most important are developing the right products for the market and selling them. For the most part, human resources professionals turn out good products. Unfortunately, we do not do an effective job of marketing our products and our capabilities.

The human resources function is slowly but surely coming out of the closet and into the mainstream of corporate management. If you, as an HR professional, want to position yourself in the mainstream, you have to take the offensive. No one is going to put you there automatically. You must begin to think and act strategically to market yourself more effectively.

The Strategic Moment

All life runs in cycles and that includes business. It is difficult to introduce new ideas or methods when business is in either an up or a down cycle. When business is good, few managers are willing to rock the boat; the premise is "Why argue with success?" When business is bad, everyone is bailing with all their might to keep the ship afloat, and this is not the time to risk resources on new ideas. The best time for change occurs when there is a break in the cycle. Discontinuity pokes holes in the organizational fabric, and the person who picks up the broken threads can reweave the fabric pretty much to his or her liking.

The 1980s have become the greatest era of discontinuity since the Great Depression. Deregulation, imports, technological advances, and civil and consumer rights issues are but a few of the forces that have simultaneously struck the American business scene. Many industries are undergoing revolutionary changes, and there has never been a greater need—or a better chance—for human resources professionals to reassess their positions. A competent, proactive, fully functioning human resources department is the greatest asset any organization can have today. In order to step up to the challenge of the 1980s and to make the most of it, human resources professionals need to take a strategic marketing approach. If this opportunity passes, it may be 20 years before a chance like this occurs again.

Today's Discontinuity

Five issues characterize our current discontinuity. Collectively they offer myriad opportunities to market human resources capabilities. If you look into these breaks and changes, you will find threads to pick up and weave into a more effective fabric, for yourself and for your organization.

1. *Competition.* Technology and transportation have made the world one market where anyone can sell products anywhere. Business is tough and getting tougher. Organizations will allocate resources only to those functions that can demonstrate an adequate return on investment.

2. *Structural change.* Business practices in the 1990s will be vastly different from what they were in the 1970s. Managers must find new methods and new resources to deal with the fundamental changes buffeting their industries.

3. *Employees.* People are reconsidering the role of work in their lives. Education, travel, the news media, and technological advancements have awakened employees to the many choices before them—including, for example, dual careers and working at home. People have become a more complex asset to manage.

4. *Management.* Automation and social pressures are forcing new management styles on organizations. Management is now beginning to see and treat employees more like partners than adversaries.

5. *The human resources profession.* The HR profession must position itself for the future or

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be pushed aside, isolated, and perhaps replaced by a new approach to human-asset management. Keep in mind that HR has no God-given right to its position. Either HR professionals service the new marketplace or, like dodo birds, they could become extinct.

A wise person once said, "You can't find new solutions to new problems by looking at them harder in the old way." HR needs a new approach, a new model to deal with the strategic problems caused by discontinuity.

The Strategic Marketing Wheel

The wheel is an appropriate model for demonstrating strategic HR marketing. The wheel suggests movement; as it overcomes inertia, it gains a power of its own. Exhibit 1 illustrates the strategic marketing wheel.

The axle

The basic question every business enterprise must answer is, "What is our business?" Why does the organization allow HR to exist? What mission does HR fulfill? To answer these questions, do not focus on the products and services that HR professionals offer, but rather on the benefits that the organization derives from the HR function.

Think of yourself as a business called HR INC. and of your marketplace as ORG—the organization for which you work. Your business is not to provide employment, compensation, employee relations, or training services. Those are merely activities aimed at generating certain benefits, and the customer always buys the benefits--not the activities that HR provides.

Think about it this way: If you go to a store to buy a suit, what do you really want? Clearly, you seek something more than a piece of fabric to cover yourself. The questions of warmth or modesty are secondary to the issue of self-expression. Will the suit attract favorable reactions from other people? Similarly, if you go to a doctor with a broken arm, you're not shopping for a cast and pain-killers. You're paying to have your arm function properly again.

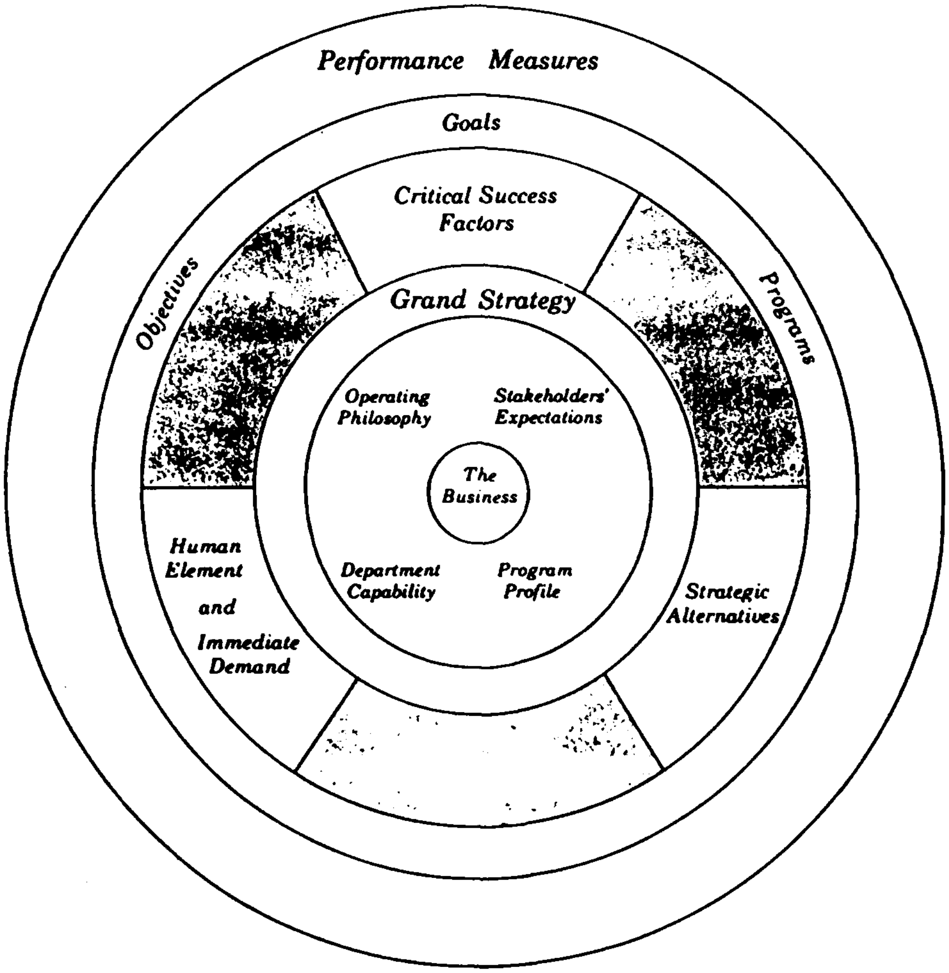
The hub

The hub contains the following four features.

An operating philosophy. A major source of employee confusion, conflict, and low productivity is lack of clarity about the organization's operating philosophy. If your staff does not know who they are, in terms of their purpose and style, they waste a lot of time feeling very anxious about themselves and their positions in the organization. HR professionals must take the time to establish and communicate what HR is about and what style it chooses to employ. This will eliminate three-quarters of the daily irritating interpersonal problems.

Corporate culture, a currently popular term, addresses these issues of identity. Who are we? What are our working values? How will HR professionals present themselves to the organization? What types of interdepartmental behavior

Exhibit 1
The Strategic Marketing Wheel


Performance Measures
Goals
Critical Success Factors
Objectives
Programs
Grand Strategy
Operating Philosophy
Stakeholders' Expectations
The Business
Department Capability
Program Profile
Human Element and Immediate Demand
Strategic Alternatives

are appropriate? These are the kinds of questions the HR manager needs to answer in order to establish the manner in which HR intends to carry out its business. Will the staff be aggressive or compliant, partners or servants, educators of management or yes-people? Some people have said that the HR function is not managed. What they mean is that each of the subfunctions is managed as a separate entity without establishing an overriding identity. Whether that is true or not, it is critical that HR professionals create and communicate a strategic philosophy under which to operate.

Stakeholders' expectations. Stakeholders are people who can influence the strategic plan or who are affected by it. The principal stakeholders are employees, top managers, middle managers, first-line supervisors, the HR department staff, and its boss.

There are several ways of learning the expectations, perceptions, and desires of the stakeholders. The most common methods are personal interviews, surveys, and group discussions.

When checking stakeholders' expectations, try to avoid making two basic mistakes. First, do not take at face value what you are told and second, do not try to sell the stakeholder on something you've already decided. The strategic approach lies somewhere in between. The key is to take a deep look at what's happening now and at what may be happening in the future. Stakeholders often communicate expectations based on past experiences rather than on future needs, and they cannot be expected to know the full capability of a modern HR department. In this sense they need to be educated, but do not sell them something that worked somewhere else just because you're good at it. There is a delicate balance among your stakeholders' perspectives, your interests and skills, and the current and long-term needs of the organization.

Departmental capability. Once you know what you should be doing, it's time to look at where you are. This calls for a capability analysis.

The capability analysis is a two-step process that starts with making a list of key forces within HR's internal and external environments. This list should describe the human, financial, technological, and operational characteristics of the two environments. Internal forces, for example, are the capabilities and personalities of the HR staff, the condition of the office and its equipment, the level of technology available, and the size of the department's budget. External forces are the physical location of the department; its power position with ORG; and ORG's mission, financial stability, and managerial capability as related to HR INC.

The second step in the capability analysis is to evaluate each force to determine if it constitutes an opportunity, a threat, a strength, or a weakness. Forces may appear in more than one environment; they may be positive in some instances and negative in others. Success depends on the HR department's ability to build on the positives and neutralize or change the negatives.

Program profiling. The next task is to examine the state of your current product line. This process is called life-cycle profiling. If you know where you are in the life cycle of a program, you know whether you should be committing or withdrawing resources.

Exhibit 2 illustrates the four phases in a life cycle: introduction, growth, maturity, and decline. Each phase calls for a different use of resources. The first phase, for example, features a heavy commitment of personnel, cash, and equipment. As the program grows, resources are employed in different ways to meet changing needs; in the declining phase, resources are gradually withdrawn.

The hub cap

The next step is to start devising your overall strategy.

Exhibit 2
The Phases and Activities of Life-Cycle Profiling

Function	*Introduction*	*Growth*	*Maturity*	*Decline*
Personnel	Assign senior staff to the development and initial delivery stages.	Begin to train junior staff to deliver the program.	Phase in junior staff and reassign senior staff to new projects.	Maintain skeleton staff support.
Finance	Allocate funds to cover design, development, and marketing expenses.	Continue support as needed or until program becomes self-sustaining.	Allocate funds to developing custom versions or special features.	Stop spending; liquidate unused resources.
Research & Development	Design first version and modify based on test feedback.	Monitor application, research-enhanced versions, and new products.	Design special features and begin to shift resources to develop new products.	Withdraw all resources and support.
Marketing	Begin publicity, develop interest in program, and gain acceptance.	Continue to promote by reporting results with stories of use and success.	Offer customized versions, special features, or discount pricing.	Phase out support and shift to new products and services.
Production	Conduct test version and rework based on revised design.	Continue to deliver standard version with minor changes based on user feedback.	Reduce production costs for standard version; add custom or special features.	Begin to shift resources to build and deliver new programs.

The grand strategy. A strategy is a planned way of directing an organization toward a predetermined mission and a set of objectives. Your strategic marketing approach will be built on the fundamentals discussed above: You must decide on the basic nature of the business of HR INC. You should consciously determine your style of operation by formulating and communicating the department's operating philosophy and workgroup values. You must learn your stakeholders' expectations, analyze your department's capability, and run a program profile.

A grand strategy coalesces everything into a basic rationale. This prompts creation of a small number of key superordinate objectives. Grand strategy objectives might be to reduce interdepartmental conflicts, promote intrapreneurship, or improve the quality of work life. These lead, in turn, to a set of shorter term operating objectives and finally to specific, measurable goals to be achieved through your programs.

The spokes

After you have built the hub you are almost ready to move outward toward a strategic plan and major objectives. But, before proceeding, keep in mind the following issues.

Critical success factors. CSFs are a reality check required because planning can be a seductive process. It can proceed so smoothly that the planners lose touch with the real world. One good way of getting back in touch is to ask yourself, "What does it take for us to be successful in this organization?" This bottom-line question cuts through all the beautiful charts and diagrams and lays bare the realities of your organization's culture. Peter Drucker offers a list of CSF categories. They include marketing of services; innovation; human, financial and facilities management; productivity; social responsibility; and effectiveness.

Line management can provide good answers to this question. If you ask line managers to think about how CFSs apply to them in their work and how CSFs apply to your function, you should obtain some very valuable information. From this input some trial objectives can be set. These objectives should contain very specific success criteria. Blue sky, abstract statements of success lead to nonspecific, nonmeasurable nonobjectives. Also, keep your list of objectives short—probably less than five major objectives. Some people claim that there should be only one major objective each year—that is, "Progress, not perfection."

Impact elements. Developing a strategy is a complex task that involves more than simply amassing a body of data and applying logic. Difficult, multifaceted choices have to be made. Organizations are mini-societies, cultures within which social and political forces interact with business forces. Anyone who believes that logic alone rules organizations has not spent more than five minutes in one. There are two nonlogical factors that can impact the course of events as well as the decision maker.

One is the human element. Try as we might to make business a science, it will always remain an art form because of the human element. People—whether they be senior managers or first-level laborers—are emotional, intuitive, and sometimes irrational. And they operate in a stimulus-rich environment. Those stimuli come from four sources:

- Task demands that utilize skills and formal authority.
- A work environment that reflects relationships within the department.
- Organizational pressures brought on by peer groups and superiors outside the department.
- Personal needs and values.

Your reaction to these forces will influence your decision making at all levels, including strategic choices.

The second impact element is immediate demand. At any time, that is, a person's behavior may be swayed by a pressing force. This can be an unexpected event, such as a merger, a reorganization, a market change, or a cash-flow problem. Or it might be a planned event such as a year-end closing. In either case, the immediate demand becomes the driving issue of the moment; everything else must work around it. Even a well-considered strategic plan may be superseded by immediate demand.

Strategic alternatives. Deciding on major objectives and key goals involves some difficult choices. Many years ago, a movie featured a character who was constantly being threatened. His invariable response was, "There are always at least two alternatives."

In fact, there are ten alternatives. Each alternative is unique in form and offers certain advantages and disadvantages. Also, each has a different probability of success. The ten alternatives can be applied to issues, problems, or opportunities during the planning process as well as later when the plan is in operation. The point is that there is always a solution to the problem.

Here are the ten strategic alternatives:

1. *Status quo*. Continue doing what you have been doing.

2. *Concentration*. Invest your resources in improving what you're doing rather than trying something new.

3. *Horizontal integration*. Take over a training program being run by some other department.

> *"Quality of work life is more than well-lighted spaces and participative-management programs. It's the application of the organization's values and expectations."*

4. *Vertical integration.* Instead of using an outside agency, write and place ads yourself.
5. *Diversification.* Take over other administrative functions.
6. *Joint venture.* Share the cost of a program with the user.
7. *Retrenchment.* Establish hours for a service instead of making it available all day.
8. *Divestiture.* Give the no-win functions to some other department to manage.
9. *Liquidation.* Just stop what you're currently doing.
10. *Innovation.* Be creative by doing something new.

By applying alternatives to any impasse, you can fully explore all possible courses of action and make a high quality decision.

The rim

Now you are ready to set specific operating objectives.

Objectives, goals, and programs. Everything that has come before acts as a sturdy frame on which to attach plans and programs. You know who you are, where you want to go, what kinds of barriers you may encounter, and the assets you can count on to help you through. At this point operating objectives can be set along with timetables. You can begin to make assignments and delineate responsibility and authority. Your staff can start to build or modify products and services. These plans and programs will define who will do what, when, with whom, how, and how much. Now your wheel is starting to roll.

The Tire

This is where the data are developed to measure your performance. The HR function will need this information on an ongoing basis so that the department can be monitored and managed. The data will also be used to communicate results to top management.

The effectiveness of your plan can be measured by comparing the outcomes of your work with goals and objectives. There are two levels of performance indices: tactical and strategic.

The tactical level. This level deals with day-to-day operations. It measures efficiency, productivity, and quality. Efficiency is the ratio of products or services divided by resources invested. It is usually expressed as some combination of cost, time, or quantity. Productivity is also a ratio of input to output. However, common usage is giving it a broader definition. *Efficiency* is now primarily used to describe individual cases, while *productivity* is increasingly applied to overall efficiency. Quality is a measurement of condition rather than cost, time, or quantity. It is most commonly used to describe product defects, but it can also be applied to services. There is a growing tendency to view productivity and quality together.

The strategic level. The strategic level is concerned with broad, long-range issues. Its principal indices are effectiveness, quality of work life, and profitability.

Effectiveness can be valued at both the departmental and the organization level. Departmental effectiveness is often a multivariate measure of how well a group has achieved a broad objective. Departmental effectiveness is often composed of several measures of productivity and quality, all of which relate to a single goal. Organizationally, effectiveness can be evaluated only in terms of periodic achievements or the development of capabilities. Examples are flexibility and innovation. Hopefully, the human resources function plays a role in those developments, and there is evidence of its contribution. *The best way to show HR's contribution is to plan for it and define it before the fact.*

Quality of work life is another measure of the human aspects of the work environment. Employee attitudes and morale levels are partial indicators, but quality of work life is more than clean, well-lighted spaces and participative-management programs. It's the application of the organization's values and expectations. These determine how jobs will be designed, work processed, policies and procedures administered, performance standards set, and reward systems structured.

A Concluding Thought

For a long time the human resources function has been labeled an expense center. This assumption is no longer appropriate or constructive. Today, a human resources department that is fulfilling its mission is not an expense center, it is an income generator.

Think about the many ways in which the human resources department's products and services contribute to income generation. The staffing department goes through an exhaustive selection procedure to ensure that the best and most productive person is placed in each position. Why? Because, by definition, productive people contribute more to revenue generation than do unproductive people. The development function assesses, counsels, and trains people so that their job skills will improve. Why? Because skilled people are more productive than unskilled people. Compensation plans motivate people to work hard to meet objectives. Employee assistance programs help employees with personal problems so that they can get back on the job and become productive again. There are countless examples of how you and your staff directly and indirectly generate income.

Build your marketing strategy around the idea that the human resources department is a revenue generator. When you draw up your budget, get away from the traditional expense approach and discuss it from a return-on-investment standpoint. When you talk to your boss and other managers, remember this: Employees are human assets that the organization employs to achieve certain human and financial objectives. The human resources department is a revenue-generating, asset-managing center. This strategic marketing approach will position you firmly in the mainstream of your organization's management. □

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ANNEX A

ALPHABETICAL LIST OF ATTENDEES

This Directory lists all registered National Forum participants in alphabetical order. It includes Panel members, guest speakers, observers, and recorders.

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